EXHIBIT "A" OF PLANNING COMMISSION RESOLUTION NO. 05-11

CEQA FINDINGS OF FACT

and

STATEMENT OF OVERRIDING CONSIDERATIONS

OF THE COUNTY OF KINGS

for the

B-19 LANDFILL BIOREACTOR PROJECT CHEMICAL WASTE MANAGEMENT, INC. (SCH NO. 2003091023)

May 27, 2005

I.
INTRODUCTION

Chemical Waste Management, Inc. ("CWMI" or "Applicant") is requesting modification of an existing Conditional Use Permit ("CUP") and revision of an existing Solid Waste Facility Permit ("SWFP") from Kings County ("County"), and a revision of an existing Waste Discharge Requirement ("WDR") permit from the Central Valley Water Board (formerly known as the California Regional Water Quality Control Board, Central Valley Region), to allow the construction and operation of a bioreactor within the existing permitted B-19 Class II/III Landfill, an increase in the permitted tons per day of accepted municipal solid waste and designated waste (with no limit on Class II soils received for beneficial use, such as daily and intermediate cover, or on wastes received for use as alternative daily cover other than the amount limited by the total number of truck traffic trips analyzed in the SEIR), providing for the receipt of up to 800 tpd of liquids and high-moisture content waste, and Saturday hours of operation (the "Project"). The Project is located within the approximately 1,600-acre property known as the Kettleman Hills Facility ("KHF" or "Facility"), owned and operated by the Applicant and located approximately 3.5 miles southwest of Kettleman City, 6.5 miles southeast of the city of Avenal, and about 2.5 miles west of Interstate 5 ("I-5") in western Kings County. The Project will use anaerobic bioreactor technology and processes to accelerate the decomposition and stabilization of municipal solid waste within B-19. (Draft Subsequent Environmental Impact Report ("DSEIR"), pp. 1-6 to 1-7.)

II.
DEFINITIONS

These findings use the same definitions and acronyms set forth in the SEIR. In addition, the term "Commission" refers to the Kings County Planning Commission, and the term "Board" refers to the Kings County Board of Supervisors.

III.
PROJECT DESCRIPTION

OVERVIEW

Current Class II/Class III Waste Disposal Operations

Municipal Solid Waste and Designated Waste: Disposal operations of Class II and III waste at B-19 are kept separate from hazardous waste operations at the site. Municipal solid waste arrives at KHF primarily via transfer trucks from Kings County, Tulare County, and Fresno County. (DSEIR, p. 2-4; FSEIR, p. 2-2.)

Upon entering KHF, these wastes are identified at the gate and directed to the working face at B-19. After the waste is unloaded from the vehicles, it is placed into a series of lifts by a dozer and compactor. On a daily basis, cover material from the onsite borrow area or Class II soil is placed over the waste in a minimum 6-inch-thick compacted layer; or an approved alternative daily cover ("ADC") also may be used. (DSEIR, p. 2-4.)

Class II Soils: Currently, KHF is permitted to receive up to 600 tpd of Class II soils for beneficial use. Typically, these soils are contaminated with low levels of petroleum hydrocarbons from cleanup projects. These soils are suitable for use as daily cover because KHF is a permitted Class II facility. The Class II soils are stockpiled within the limits of B-19 for use as daily cover. (DSEIR, p. 2-4.)

Proposed Project Operations

The KHF waste treatment, storage, and disposal facility has been owned and operated by CWMI since 1979. The KHF site is approximately 1,600 acres, with approximately 474 acres currently permitted for ongoing storage, waste treatment, and disposal operations (see Figure 1-2). The proposed Project will be constructed within the existing limits of B-19, the active disposal landfill for Class II and Class III waste (designated waste/municipal solid waste) at KHF. (DSEIR, p. 2-1; FSEIR, p. 2-1.)

The Project involves the following elements:

- converts a portion of the existing B-19 Class II/III Landfill to be operated as a bioreactor unit;
- increases the permitted tonnage of Class II designated waste and Class III municipal solid waste disposal in B-19 from 1,400 tons per day (tpd) to 2,000 tpd, with no limit on Class II soils received for beneficial use such as daily and intermediate cover, or on wastes received for use as approved ADC;
- increases the hours of waste acceptance at B-19 to include Saturday from 8:00 a.m. to 6:00 p.m.;
- allows receipt of up to 800 tpd of liquids and high-moisture content waste;
- reconfigures the existing B-19 waste disposal area from 40 acres to 29 acres to receive Class II/Class III waste;
- steepens the final grades from 4:1 to an effective slope of 3:1 with a maximum elevation of 945 feet above mean sea level (msl); and
- revises the final cover system for the Class II/Class III waste portion of B-19 from a composite liner system to a monolithic cover system.

(DSEIR, pp. 1-4, 2-1; FSEIR, pp. 1-3, 2-1 thru 2-2.)

For purposes of permitting, the Project is considered a continuation of existing disposal operations at B-19, with the provision of the bioreactor as a demonstration project. A portion of B-19 will be converted to a bioreactor (bioreactor unit). The remainder will continue to operate as a traditional "dry" landfill for disposal of municipal solid waste and designated waste (control unit). (DSEIR, p. 1-6; FSEIR, p. 1-4.) Currently, the entire B-19 landfill is operated as a traditional dry landfill. (DSEIR, p. 2-1; FSEIR, pp. 1-3 thru 1-4.)

Bioreactor Landfill: A bioreactor is a landfill that is designed to accelerate the decomposition and stabilization of waste. The bioreactor concept differs from the traditional "dry tomb" municipal landfill approach where moisture is removed from the waste. There are three general types of bioreactor landfills:

- Anaerobic – Moisture is added to the landfilled waste in the form of recirculated leachate or other sources to obtain optimal moisture levels
- Aerobic – Moisture and air are added to the waste
- Hybrid – Aerobic and anaerobic treatments are applied sequentially

The Project includes an anaerobic bioreactor landfill. This will involve the addition of liquids and other high-moisture-content wastes to stimulate the natural biodegradation process. (DSEIR, p. 1-6; See also, "The Bioreactor Landfill – The Next Generation of Landfill Management" White Paper, Waste Management, Inc. (2000).)

Moisture content is the single most important factor that promotes the accelerated decomposition of waste. With bioreactor technology, there is purposeful control to maintain optimal moisture content at approximately 35 to 65 percent. The moisture, combined with the biological action of naturally occurring microbes, accelerates the rate of decomposition of the waste. A side effect of an anaerobic bioreactor is that it produces landfill gas earlier and at an overall higher rate of generation in the short term than does a traditional dry landfill. However, landfill gas is generated for a shorter period of time, resulting in long-term air quality improvements compared to the amount of LFG emitted over time from a traditional dry landfill. (DSEIR, p. 1-7.)

Waste Disposal Activities: Construction of the bioreactor and control units will occur entirely within the existing B-19 landfill, the active Class II/III disposal facility at KHF. For the Project, an area of about 11 acres on the southerly side of B-19 will receive final cover as a hazardous waste unit and will not be utilized for the Project. As a result, the permitted Class II/III airspace of B-19 will be reduced from about 4.4 million cy to about 4.0 million cy. Of this, about 3.0 million cy will compose the bioreactor unit, and about 1.0 million cy will compose the control unit. Because of the greater density of waste in the bioreactor portion of B-19, the Project is estimated to increase the total Class II/III waste capacity of B-19 to about 3.1 million tons. The bioreactor will have a capacity of about 2.4 million tons, and the control unit will have a capacity of about 0.7 million tons. (DSEIR, p. 1-7.)

Under the Project, Class II/III waste disposal would occur from 8:00 a.m. until 6:00 p.m., Monday through Saturday, except on designated holidays (New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving, and Christmas). In the event of an emergency, the LEA may authorize KHF to accept municipal solid waste outside of normal operating hours. Class I disposal operations and other routine onsite operations at other permitted treatment, storage, and disposal units at KHF would not be affected by the Project and would continue 24 hours a day, 7 days a week. (DSEIR, p. 1-7; FSEIR, p. 2-3.)

PROJECT LOCATION

The KHF is an existing waste treatment, storage and disposal facility for hazardous wastes, and a waste disposal facility for municipal solid waste and designated waste. KHF is located in unincorporated western Kings County, California, approximately 3.5 miles southwest of Kettleman City, 6.5 miles southeast of the city of Avenal, and about 2.5 miles west of I-5, and 1 mile north of SR-41. KHF is located on a 1,600-acre parcel, within which approximately 474 acres are permitted for ongoing waste treatment, storage, and disposal operations. (DSEIR, p. 1-4; FSEIR, pp. 1-2 thru 1-3, 2-1.)

PROJECT OBJECTIVES

The purpose of the Project is to increase the days of operation and daily disposal tonnage for designated waste and municipal solid waste at KHF, and to demonstrate the feasibility of a bioreactor landfill for the disposal of designated waste and municipal solid waste. (DSEIR, p. 1-4.)

The Project objectives include the following:

- Provide for operation of a bioreactor unit within the B-19 Landfill as a demonstration project.
- Demonstrate the feasibility of bioreactor landfill disposal technology by comparing the performance of the bioreactor with the performance of a traditional dry landfill.
- Increase the daily tonnage of municipal solid waste and designated waste permitted for disposal at KHF.
- Receive municipal solid waste and designated waste at KHF on Saturdays.

(DSEIR, p. 1-5; FSEIR, pp. 1-2 thru 1-3.)

PROJECT DESCRIPTION

As discussed in Section 2.1 of the Draft SEIR, the proposed bioreactor unit is a demonstration bioreactor project as provided in Code of Federal Regulations (CFR), Title 40, Part 258.4, Research, Development and Demonstration Permits (April 21, 2004), Federal Register (FR), Vo. 69, No. 55, March 22, 2004. Under this rule, the U.S. EPA allows an approved state to issue research, development and demonstration (RD&D)

permits for new and existing municipal solid waste landfills. The state of California, through the CIWMB, currently is considering draft regulations for the issuance of RD&D permits for bioreactors at new and existing landfills in the state (draft regulation CCR Title 27, Section 20070). At such time that the state may issue RD&D regulations for bioreactors, the EPA would be required to approve such regulations before they could go into effect. (FSEIR, Response 04/3; pp. 3-24 thru 3-25.)

As noted by the CIWMB in comments on the Draft SEIR, the CIWMB would be unable to issue a revised Solid Waste Facility Permit for the bioreactor portion of the project absent EPA approval of state regulations for the issuance of permits for bioreactors in California. While California's RD&D regulations for bioreactors (Draft CCR Title 27, Section 20070) have not been adopted by the state, the requirements contained in the draft regulations are included in the bioreactor component of the proposed Project.

After implementation, the bioreactor unit and control unit are expected to reach final grades after an estimated 3 to 5 years of operation. (DSEIR, p. 2-4.)

Project Design

Under the Project, a portion of the B-19 Class II/III Landfill will be used as an anaerobic bioreactor. The bioreactor unit will be operated and monitored in conjunction with the control (dry) unit of B-19 so that performance data can be compared between the two units in the same environmental setting. Under the Project, the limits of the area to receive Class II/III waste in B-19 will be reduced from about 40 acres to about 29 acres. The bioreactor unit is about 18 acres, and the control unit is about 11 acres. Eleven acres have been removed from the currently approved landfill disposal area and will receive final cover in conformance with regulations governing Class I disposal facilities, as provided in the California Code of Regulations (CCR) Title 22. (DSEIR, pp. 2-4 to 2-5; FSEIR, p. 2-1.)

The bioreactor will be operated with the addition of liquid and high-moisture-content wastes which will increase the rate of waste decomposition. The bioreactor will be situated entirely on top of the Class II/III waste in B-19. (DSEIR, p. 2-5.)

The control unit will be operated using the dry methods typical of most landfills, where efforts are made to minimize storm water percolation into the waste. The control unit will be situated over the existing Class I disposal area and will be filled with Class II/III waste. The bioreactor will not affect the integrity of the Class I elements of B-19. (DSEIR, p. 2-5; FSEIR, Responses to Comment Letter 05, pp. 3-32 thru 3-36.)

Project Development

Bioreactor Unit

Development of the bioreactor will occur concurrently with development of the control unit and will involve the following:

- Installation of settlement plates to monitor movement of the waste within the bioreactor;
- Construction of a landfill gas control-and-flare system (a single system will function for both the bioreactor and control units); and
- Miscellaneous pumps and piping to transport liquid to appropriate locations within the bioreactor.

Control Unit

- Development of the control unit will involve the following:
- Construction of a landfill gas control-and-flare system (a single system will function for both the bioreactor and control units); and
- Installation of settlement plates to monitor movement of the waste within the control unit.

(DSEIR, pp. 2-5 to 2-6.)

Operations

Compactors and dozers will push and spread the waste in layers approximately 2 feet thick, compacting the waste with an adequate number of passes (normally three or more), and providing an even slope from which to operate. The waste fill will be placed in lifts about 12 to 20 feet thick with typical perimeter slopes of approximately 3 horizontal to 1 vertical (3:1). The typical active working face for each day will comprise one lift, approximately 200 feet wide. Multiple working disposal faces may be utilized if necessary to accommodate incoming tonnage or other operational requirements. (DSEIR, p. 2-6.)

It is expected that there will be significant settlement for a number of years directly after the bioreactor reaches final grade. This is due in part to the fact that there will be a maximum of 3 to 5 years of liquid and high-moisture-content waste additions from the time the bioreactor unit operations are approved and implemented until final grades are attained. (DSEIR, p. 2-6.)

Additional lifts will be placed on the bioreactor to utilize the airspace that will be created by settlement that occurs after final grades are initially attained. The exact time frame and amount of tonnage to comprise the additional lifts are uncertain at this time and will depend on the actual amount of settlement that occurs after final grades initially are achieved. The placement of these additional lifts will be coordinated in advance with regulatory agencies and will not exceed the final grades on the approved final grading plan. (DSEIR, p. 2-6.)

Bioreactor Liquid Management

To operate the anaerobic bioreactor, additional moisture will be introduced into the waste to accelerate the biodegradation. This differs from traditional dry landfilling practices that use a variety of procedures to minimize moisture (leachate) within a waste management unit. (DSEIR, p. 2-6.)

The bioreactor will use a combination of recirculated leachate (liquid that is generated during decomposition of landfill waste and/or that comes into contact with landfill waste), wastewater, biosolids (including sewage sludge), and other high-moisture-content waste (such as oil field brine and food-processing liquids) to allow microorganisms to break down solid waste in an accelerated time frame. Much of the additional liquid will be delivered from offsite, via truck, primarily from Kern, Kings, Tulare, Fresno, Santa Barbara, and San Luis Obispo counties. The liquid wastes that will be added to the bioreactor will be designated either nonhazardous or nondesignated wastes. Currently, the source of the liquid waste is unknown because contracts for the liquid waste have not been established. (DSEIR, p. 2-6.)

Leachate that is collected both from the bioreactor and from control unit at B-19 will be reintroduced into the bioreactor unit. Leachate associated with hazardous waste disposal activities at KHF will not be used for the proposed Project. (DSEIR, p. 2-7.)

Tank trucks will deliver liquid waste to the site for offload into storage tanks, directly into infiltration galleries, or directly onto the landfill surface. These storage tanks will be connected to a network of trenches that will allow the moisture to percolate throughout the waste material in the bioreactor. Those liquids and high-moisture-content wastes that cannot be placed in the tanks will be deposited at the bioreactor surface, where they will be covered with waste and daily cover. (DSEIR, p. 2-7.)

It is anticipated that the liquids required to maintain the bioreaction process will be between 35 and 60 gallons of liquid per cy of waste placed in the bioreactor, depending on operating and site conditions to achieve the moisture field-capacity of the waste. The DSEIR assumes a scenario of 60 gallons of liquid per cy of waste for an estimated maximum of approximately 170,000 gallons per day (gpd) of liquids and high-moisture-content waste being delivered to the site and introduced to the bioreactor to promote bioreactor conditions. (DSEIR, p. 2-7.)

It is expected that the addition of liquids and high-moisture-content wastes will need to continue after the landfill reaches final grades. This will enable the bioreactor to reach and then maintain optimal bioreactor moisture conditions. Moisture additions and conditions in the bioreactor are proposed to be monitored until most of the waste degradation has occurred, and the rate of degradation has dropped accordingly. This condition is not expected to occur for several years after B-19 reaches final grade. Leachate that occurs after the last addition of liquids to the bioreactor will be routed to a leachate tank and then to onsite evaporation ponds. The sludge either will remain in the

pond for in-place closure of the pond or will be removed for disposal. If removed for disposal, the sludge either will be disposed at an onsite landfill or will be shipped to an offsite location for disposal. (DSEIR, p. 2-7.)

Landfill Cover

Estimates of cover material that will be required for operation and closure of the bioreactor and control units is approximately 900,000 cubic yards, the same as originally estimated for B-19 and was addressed in the 1997 SEIR. Therefore, the amount and source of cover material for the Project has been addressed and permitted in association with the 1997 SEIR for B-19. Sufficient quantities of daily, intermediate, and final cover material are available at permitted soil borrow sites at KHF. Other materials also may be used, as discussed below. (DSEIR, p. 2-7.)

Daily and Intermediate Cover

In addition to the use of onsite soil for daily cover, KHF is currently permitted to receive up to 600 tpd of Class II soils (i.e. designated waste) for beneficial use (e.g., as cover material for B-19). Typically, such soils are contaminated with petroleum hydrocarbons from cleanup projects. These soils are suitable for use as daily cover at KHF and at other landfills that meet Class II standards and are permitted to receive designated waste. These Class II soils will be stockpiled within the limits of B-19 for use as daily cover or other beneficial use, the same procedure as occurs under the existing permit for B-19. For the Project, there will be no daily limit on the amount of these Class II soils that can be received at KHF. (DSEIR, p. 2-8.) The site would also be allowed to accept an additional 800 tpd of liquids and high-moisture content waste to ensure optimal bioreactor conditions under the proposed project. (FSEIR, pp. 1-3, 2-1.)

The SEIR assumed that onsite soils and Class II soil material will be used as daily cover throughout the life of the Project, pursuant to CCR Title 27, Sections 20680 (daily cover) and 20700 (intermediate cover). In addition, approved ADC may be used. (DSEIR, p. 2-8.)

Final Cover

In addition to the daily and intermediate cover material that will be placed over waste in B-19, final cover will be placed at the time of closure for the B-19 Class II/III Landfill bioreactor and control units, which will be closed together. The final cover system is proposed to be a monolithic cover consisting of 1 foot of intermediate cover placed on final grades prior to closure, plus an appropriate soil layer based on the climate at KHF. The design of the monolithic final cover will be submitted to the Local Enforcement Agency (LEA), California Integrated Waste Management Board (CIWMB), Central Valley Water Board, and Department of Toxic Substances Control ("DTSC"), as needed, for approval in accordance with CCR Titles 22, 23 and 27. (DSEIR, p. 2-8; see also FSEIR Response to Comment Letter 05/4, pp. 3-34 thru 3-36.)

The final cover will include revegetation with plant species that will promote evapotranspiration and inhibit erosion. Final cover also will be placed over approximately 11 acres in the southerly portion of B-19 that will be closed and not used for the Project. Because this area has received Class I waste, the final cover will be in accordance with CCR Title 22 and Resource Conservation and Recovery Act (RCRA) Subtitle C. (DSEIR, p. 2-9; see also FSEIR Response to Comment Letter 05/4, pp. 3-34 thru 3-36.)

Waste Handling and Disposal

The components of the waste stream, a list of municipal solid wastes and designated wastes that will be permitted for disposal at the Project, and the materials to be used as cover material are discussed on pages 2-9 to 2-11 of the DSEIR. The existing SWFP (16-AA-0021) also provides the types of non-hazardous and designated wastes the facility is permitted to receive. (SWFP 16-AA-0021, p. 4, § 17, sub. (i).)

Control of Incoming Waste

The KHF will continue to implement existing controls to manage the municipal solid waste and designated waste that are received onsite under the Project to: (1) Evaluate the wastes to assure that disposal is in compliance with permit and regulatory requirements, and (2) Assure that wastes received are appropriately inspected and routed safely to B-19 for disposal. These controls, and the processes and procedures described below, are the same as those that currently occur onsite. Wastes that enter KHF, for example, are subject to screening by stationary radiation detection devices at the in-bound scales at KHF. (DSEIR, pp. 2-11 to 2-12; FSEIR, p. 2-2.)

Municipal Solid Waste: Municipal solid wastes will continue to be subject to a visual screening program whereby the wastes are inspected for the presence of hazardous wastes and polychlorinated biphenyl (PCB)-containing wastes, either at the time of processing through a transfer station or on a random basis at KHF for wastes that are received directly from collection vehicles. In addition, any waste load suspected of nonconformance with requirements for disposal will be inspected. This program will continue to meet federal and state regulatory requirements. (DSEIR, p. 2-12.)

Hazardous wastes that are detected by the inspection program will be identified and managed in accordance with regulatory and permit conditions. In addition, personnel assigned to B-19 will continue to be trained to observe waste deposited at the working face for hazardous wastes and PCB-containing wastes. These personnel, who include equipment operators and landfill spotters, will be responsible for reporting the presence of hazardous and/or PCB-containing wastes and for supporting removal of these wastes at the B-19 bioreactor unit and control unit. (DSEIR, p. 2-12.) The above procedures are the same as those implemented for existing activities at B-19.

Designated Waste: At KHF, designated wastes are subject to procedures similar to hazardous waste in requiring evaluation of each waste stream prior to receipt. In accordance with CCR Title 27, Section 20210, designated wastes can be discharged only

at Class I waste management units or at Class II waste management units that comply with applicable State Water Resources Control Board (SWRCB) requirements and have been approved by the applicable RWQCB. Because B-19 is a Class II/III landfill, it is permitted to receive designated wastes for disposal consistent with the WDRs. (DSEIR, pp. 2-12 to 2-13.)

Other Wastes: Under the Project, other accepted wastes include liquids and high-moisture-content wastes that will be disposed in the bioreactor to accelerate the degradation of the municipal solid waste. Some of these other wastes may be designated waste. Therefore, procedures for control of these incoming wastes will be the same as for designated waste described above. (DSEIR, p. 2-13.)

Daily Disposal Operations

At the working face of the B-19 bioreactor unit, municipal solid waste and high-solids-content wastes will be spread, compacted, and covered. Designated waste will be spread and compacted, or mixed with municipal solid waste. Compaction equipment will make sufficient passes over each layer along the working face to assure adequate compaction. At the end of each day, cover material from the onsite soil borrow area or from stockpiled Class II soils will be used to place a minimum 6-inch-thick compacted layer over the waste. Approved ADC may be used in place of soil. (DSEIR, p. 2-13.)

Waste disposal procedures at the control unit will be the same as those under existing permits. The amount of waste permitted for daily disposal at B-19 (bioreactor and control unit) will be increased from the currently permitted 1,400 tpd to 2,000 tpd. To accommodate this increase, KHF will use two additional pieces of equipment (one compactor and one dozer) during daily disposal operations at B-19. (DSEIR, p. 2-13; FSEIR, p. 1-4.)

Hours of Operation

Under the Project, receipt and disposal of MSW, designated waste, and liquids will occur from 8:00 a.m. until 6:00 p.m., Monday through Saturday, except on designated holidays (New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving and Christmas). In the event of an emergency situation, the LEA may authorize KHF to accept municipal solid waste outside of normal operating hours. Currently, disposal of municipal solid waste is limited to 8:00 a.m. until 6:00 p.m., Monday through Friday, plus 80 hours per year for special occurrences. (DSEIR, p. 2-14; FSEIR, p. 2-3.)

The Project will not alter the currently permitted hazardous waste treatment, storage, and disposal operations. Existing hazardous waste disposal operations and other routine onsite operations at KHF will continue 24 hours a day, 7 days a week. (DSEIR, p. 2-14.)

As part of the current operation of B-19, transfer trucks from the KWRA transfer station/ MRF in Hanford, packer trucks and roll-off trucks from other jurisdictions in Kings County, and transfer trucks, packer trucks, and roll-off trucks from other counties

transport waste to B-19 for disposal. The public (private automobiles, pickups, and automobiles towing trailers) is not allowed to enter KHF, but is directed to take household waste to the KWRA transfer station/MRF for processing. Nondisposal operations related to activities at B-19 (e.g., stockpiling of daily cover, preparation of tipping area, grading of service roads, and placement of daily cover) usually occur daily, before 8:00 a.m. and after 6:00 p.m. The above activities will continue, unchanged, under the Project. (DSEIR, p. 2-14.)

To meet unforeseen circumstances or special requirements of KHF customers (e.g., KWRA, other communities in Kings County, and other counties), the current B-19 permit allows for the receipt and disposal of municipal solid waste after normal hours (up to 80 hours per year with written approval of the LEA). Such exceptions are specifically requested and arranged in advance with KHF personnel to assure that appropriate site personnel (e.g., entrance control, scale house, load checkers, and equipment operators) and equipment are available. This practice will continue under the Project. (DSEIR, p. 2-14.)

Personnel

The Project involves the bioreactor as an additional KHF waste disposal operation, plus an overall increase from 1,400 tpd to 2,000 tpd of municipal solid waste and designated waste. As a result, the Project will create the need for 5 employees in addition to the existing full-time work force of approximately 80 employees for all operations at KHF. (DSEIR, p. 2-14.)

Equipment

For the Project, two additional pieces of equipment (one compactor and one dozer) to support waste operations at B-19 will be required. Existing equipment, such as graders, scrapers, and water trucks, also will support the Project. Support equipment that comes into contact with hazardous waste will be decontaminated prior to use at B-19, if necessary. (DSEIR, p. 2-14; FSEIR, p. 1-4.)

Onsite equipment used to support proposed and current waste operations at KHF is shown in DSEIR Table 2-1. The actual mix of specific pieces of equipment is a function of daily operations. Periodically, rental equipment may be used to replace a piece of equipment undergoing maintenance or for specific purposes such as site maintenance, closure of a waste management unit, or establishment of landfill drainage features. (DSEIR, p. 2-15.)

Structures and Facilities

The basic structures and facilities used to support ongoing operations at KHF will continue to be used in the same manner to support the Project. These include the following:

- Entrance complex with scales, a guardhouse, and an administrative office complex with associated parking;
- Maintenance buildings used for the repair and maintenance of equipment
- Employee shower/locker rooms;
- Surface water management system; and
- Roadways.

(DSEIR, p. 2-15.)

Utilities

Water

The existing water supply system will serve the Project with no upgrades, expansions, or extensions of the system required. No changes in water use at KHF or in the local area will occur as a result of the proposed Project. (DSEIR, pp. 2-15 to 2-16.)

Liquids required for operation of the bioreactor will be provided from offsite sources and from leachate generated by B-19, which otherwise would require disposal. The Project will utilize the potable and nonpotable water supplies and systems that support existing operations at KHF. Potable water is supplied to KHF via pipeline from the City of Avenal and via truck, with water provided by the Kettleman City Community Services District. Nonpotable water is provided via pipeline and via truck from private wells near Kettleman City. Nonpotable water is currently used at KHF for dust control and soil moisture conditioning (e.g., clay liners). Potable water is distributed via a piping system that supplies the site buildings for domestic, industrial, and fire protection purposes. No other potable or nonpotable water from the local area will be used for the bioreactor. Bottled water is provided for drinking. (DSEIR, p. 2-15.)

Domestic water use at KHF will be approximately 5,000 gpd, the same as under existing conditions. Total water use, including construction, operations, and domestic uses, is estimated to range from 100,000 to 500,000 gpd, which is similar to volumes used at KHF for existing onsite operations, including periodic construction activities. The addition of five employees is not expected to noticeably affect existing water use. (DSEIR, p. 2-16.)

Sewage and Wastewater Disposal

The existing sewage and wastewater disposal system will serve the Project. No upgrades or expansion of the system will be required, in part because the Project will not result in a significant increase in wastewater. (DSEIR, p. 2-16.)

Electricity

The existing commercial electrical supply system and onsite distribution system, plus portable light plants, will serve the Project with no upgrades or expansion required.

Construction activities for the Project at B-19 would occur during daylight hours, so lighting would not be required for construction activities. Electrical power is supplied to KHF by the Pacific Gas and Electric Company (PG&E) via an existing 12-kilovolt (kV) overhead transmission line that enters the site near the entrance complex. There is no natural gas service to the site. KHF also has two diesel-powered backup generators (50-kV) to provide power to critical systems (pumps, lights, and communications) in the event of a power outage. (DSEIR, p. 2-16; FSEIR, p. 2-1.)

Telephone and Site Communications

The existing communication systems will serve the Project with no upgrades or extensions required. Onsite communication is provided via two-way radio and/or cell phone. (DSEIR, p. 2-17.)

Security/Safety

The existing security and safety program is in accordance with applicable federal and state regulations and will not be affected by the proposed Project. (DSEIR, p. 2-17; FSEIR, p. 2-1.)

Transportation/Traffic

Waste and Liquids Transport

The ongoing methods of transport and routes for delivery of municipal solid waste and designated waste will continue under the Project. Municipal solid waste from the KWRA Transfer Station/MRF is transported to KHF via transfer trucks (approximately 22-ton capacity). Municipal solid waste from other jurisdictions and service districts in Kings County that are members of KWRA (e.g., Kettleman City) arrives by packer trucks (approximately 8-ton capacity) and roll-off trucks. Municipal solid waste, designated waste, and Class II soils from outside Kings County arrive primarily in transfer trucks, roll-off trucks, and end dump trucks. However, some out-of-County waste also may arrive in packer trucks. (DSEIR, p. 2-18.)

Currently, up to 86 trucks per day transport municipal solid waste, designated waste, and Class II soils to B-19. As part of the Project, up to 94 trucks per day are expected to haul municipal solid waste and designated waste to KHF (an increase of 8 truck trips). An additional estimated 40 trucks per day may haul Class II soils to KHF for daily cover or other beneficial use or other wastes for use as ADC. (DSEIR, p. 2-18.)

The addition of liquids and high-moisture-content waste to the municipal solid waste in the bioreactor unit will result in an estimated maximum 34 trucks per day, assuming 5,000 gallons per truckload. The addition of Saturday operating hours will result in additional truck traffic to and from KHF on Saturdays, related to deliveries of municipal solid waste, hazardous waste, and designated waste. The Project will include up to 168 trucks per day (Monday through Saturday) for deliveries of solid waste and materials for daily cover and beneficial use. (DSEIR, p. 2-18.)

In 1998, during permitting of B-19 to receive Class II/III waste, the environmental analysis determined that an increase in traffic of 86 trucks per day along SR-41 through Kettleman City would not result in a reduction in the level of service (LOS). Similarly, in 2000, a traffic study prepared for B-19 determined that an increase in the number of daily trucks, to 86 daily round-trips on the segment of SR-41 through Kettleman City, would not result in a reduction in the LOS on SR-41 through Kettleman City from a Caltrans-acceptable LOS (i.e., LOS C or better) to a Caltrans-unacceptable LOS (i.e., LOS D, E, or F). (DSEIR, pp. 2-18 to 2-19.)

Under the Project, the number of trucks currently traveling through Kettleman City via westbound SR-41 (up to 86 trucks) will not increase. Other trucks will travel to KHF via eastbound SR-41 or from the north and south via I-5 to westbound SR-41. (DSEIR, p. 2-18.)

Other Traffic

An estimated 5 employees are expected to be hired for the Project, bringing the onsite work force to a total of 85 employees. This would result in a maximum of five additional vehicles per day to and from KHF. Other traffic, such as what is necessary for deliveries and visitors (approximately 20 vehicles per day), is not expected to change. The vehicles associated with employee, delivery, and visitor traffic is in addition to the 168 truck trips per day expected for the Project. (DSEIR, p. 2-19.)

Environmental Protection and Monitoring

Liner and Cover Systems

In compliance with the California Code of Regulations, a base liner system was installed in the bottom of the Class II/Class III portion of B-19, between the Class I waste previously disposed of at B-19 and the Class II/III waste currently being disposed. In addition to the base liner, a prescriptive liner has been installed over the side slopes of the Class II/III portion of B-19. Additionally, a cover has been placed over the Class I waste that remains in the landfill (separation liner). This separation liner complies with CCR Title 22 and RCRA Subtitle C. For the Project, the bioreactor will be placed over the base liner system and a portion of the separation liner. The control unit will be placed directly over the separation liner. (DSEIR, p. 2-19.)

Separation Liner

The area where there is in-place hazardous waste is physically separated from the Class II/III waste disposal operations by the cover on the hazardous waste, herein referred to as the separation liner. (DSEIR, p. 2-20.)

Base Liner

The base liner system was constructed in the bottom of B-19 when it became a Class II/Class III landfill. The system includes primary and secondary liners, and a leachate collection and recovery system (LCRS) that meet Class I standards. As such, this base liner system exceeds the Class II/III standards for waste disposal units, which require only a primary liner and LCRS system. (DSEIR, p. 2-20.)

Side-Slope Liner

An existing side-slope liner has been constructed around the perimeter of B-19 and is attached to the base liner. The placement of this liner is sufficient to accommodate the fill plan for the proposed Project.

Cover Systems

A description of daily, intermediate, and final cover is provided in Section 2.3.4 of the DSEIR.

Landfill Gas Management

Landfill gas is created when organic and other materials within the waste decompose. Because a bioreactor speeds up this decomposition process in the short term, landfill gas is created at a faster rate in a bioreactor than in a traditional dry landfill. The main component of landfill gas is methane, one of the greenhouse gases. Since methane is combustible in air at concentrations of 5 to 15 percent, a principal concern for municipal solid waste landfills is preventing the emission of landfill gas from the landfill. (DSEIR, p. 2-21.)

To control the emission of landfill gas during and after landfill operations, a landfill gas collection and removal system will be designed and constructed to serve both the bioreactor and the control unit. The system will consist of a series of horizontal and vertical landfill gas collection wells connected by a series of collection headers, plus a blower and flare. The landfill gas collection system will prevent excessive accumulation of gas within the waste, thereby reducing the potential for landfill gas to migrate beyond the B-19 waste prism. Collected landfill gas will be flared at an onsite flare station. (DSEIR, p. 2-21.)

Horizontal collection trenches filled with gravel and pipes within the waste mass of both the bioreactor and control unit will be constructed to allow a corridor for landfill gas to be collected during landfill operations. As landfill gas is collected, it cools, and moisture condenses in the collection system. This moisture, referred to as landfill gas condensate, is routed to specially designed sumps. This liquid will be recirculated to the bioreactor. (DSEIR, pp. 2-21 to 2-22.)

As the bioreactor and control units reach their final grades, vertical gas collection wells will be installed through the final cover system to continue to collect landfill gas. A blower will be connected to these wells to provide a vacuum to pull the landfill gas out of the waste. Once landfill gas is collected, it will be combusted in an enclosed flare, consistent with the applicable requirements. (DSEIR, p. 2-22.)

Gas-monitoring probes are installed around the perimeter of B-19 to monitor methane concentrations during the Project operations. Monitoring will be continued during the closure and post-closure monitoring and maintenance period, as required by CCR Titles 27 and 22, as needed. As a traditional dry landfill, the control unit may produce landfill gas for more than 30 years. For the same amount of waste, a bioreactor landfill will produce approximately the same amount of gas, but within a shorter period of time therefore resulting in fewer total air emissions. As a result, for the same amount of waste, a bioreactor has a shorter time frame for landfill gas emissions than a traditional dry landfill. (DSEIR, p. 2-22.)

Surface Water Control System

The existing KHF surface water drainage system has been designed and constructed to assure that storm water run-on and runoff do not affect existing operations at the site. The surface water drainage system is designed to accommodate flows from the 1,000-year, 24-hour probable maximum precipitation (PMP) event as required for Class I and Class II waste facilities. Collector ditches and swales are installed around the perimeter of B-19. This system accomplishes the following:

- Diverts and collects precipitation and/or tributary runoff.
- Controls inundation and ponding.
- Controls percolation of water into waste management units.
- Controls erosion or washout of deposited waste.
- Diverts surface water generated from the rest of the site.

(DSEIR, p. 2-22.)

Storm water Drainage

A Storm water Management Plan for B-19 has been submitted as required by the RWQCB. This plan will be updated to reflect modifications to the B-19 landfill as a result of the Project. The plan shows existing and planned drainage features. B-19 is inspected for ponding water and erosion during the rainy season, and adjustments are made as necessary. Such adjustments may include, but are not limited to, regrading, pumping, construction of temporary berms, and/or installation of drainage pipes and culverts. (DSEIR, p. 2-23.)

The intermediate and final grades at B-19 are designed to promote low-velocity sheet flow, reduce silt movement (erosion) during storms, and protect waste management units during a PMP event. As part of the Project, the final maximum side slopes for the bioreactor and control units will be an effective 3:1. Drainage from the top deck of the

landfill will flow to a drainage control berm, which will convey flows to overside drains and then flow to the ditches along the main access road on the final face, or to benches on the landfill and then to ditches on lower benches or to the existing perimeter drainage ditch. Flows from the perimeter drainage ditch will go through culverts to an onsite retention basin. (DSEIR, p. 2-23.)

Post-Closure Drainage

The final drainage plan for B-19 will be prepared in accordance with CCR Title 27 and will include drainage structures that will be constructed when the landfill is closed. These structures include earthen drainage diversion berms to prevent runoff from scouring the side slopes. These berms will be located along the perimeter of the top grade of major rises and will drain to low points where flared inlets will carry water to downslope drain pipes. Downdrains will convey runoff into perimeter ditches that will flow through culverts to onsite retention basins where the runoff will be allowed to evaporate.

Surface and Groundwater Monitoring

Surface water at KHF is monitored in accordance with a Notice of Intent (NOI) to comply with terms of the General Permit associated with Industrial Activity issued by the SWRCB. The general permit is authorized by the National Pollution Discharge Elimination System (NPDES) permitting process, which allows the State of California to regulate industrial storm water discharges. The General Permit will serve the Project without any modifications. (DSEIR, p. 2-23.)

Groundwater quality for current operations at KHF is monitored through a system of wells and piezometers. The specific groundwater monitoring program for the bioreactor may require modification of the existing Waste Discharge Requirements (WDRs) issued by the RWQCB. (DSEIR, p. 2-23.)

Nuisance Monitoring and Controls

Dust

The potential for dust generation is inherent to the operation of a landfill, as with any activity that involves grading, excavation, and placement of soil. Dust is controlled as part of current waste operations at KHF and will continue to be controlled for the Project. Dust control measures include, but are not limited to:

- Speed control for onsite traffic
- Use of selected materials for road surfaces, including crushed rock, recycled concrete and asphalt, and regular grading and surface compaction
- Paving of certain roads at the site
- Regular watering and maintenance of onsite roads leading to operational areas
- Application of fine water spray on soil cover or work areas during meteorological conditions that produce fugitive dust. (DSEIR, p. 2-24.)

Litter

Various measures are utilized to minimize the occurrence of litter from waste disposal operations which will continue under the Project. Litter is controlled at the B-19 working face by the use of soil cover or approved ADC, litter fences, reducing the size of the working face during periods of high winds, and policing the surrounding areas. The fence around the landfill active area also functions as a litter control fence. Onsite personnel remove litter from the fences and along the access road, as dictated by wind and weather conditions. (DSEIR, p. 2-26.)

Commercial trucks hauling wastes to Class III landfills are required by CCR Title 14 (Section 17341) to be covered; the California Motor Vehicle Code (Sections 23114 and 23115) also requires that materials not be dropped or blown from vehicles. (DSEIR, p. 2-26.)

Vectors and Birds

Measures to control dust and litter at the site also are effective in controlling vectors (insects and rodents) and birds and will continue to be employed under the Project. These measures include:

- Control of the size of the landfill working face
- Litter control and removal
- Application of daily cover
- Regular inspection of the working face and onsite buildings for signs of vector activity; if necessary, implementation of appropriate control and/or extermination measures. (DSEIR, p. 2-25.)

The landfill has successfully operated without a bird problem for years. However, in the unlikely event that birds become an issue, various specific bird-control measures that have been proven effective at other municipal solid waste landfills may be utilized at KHF. (DSEIR, p. 2-25.)

Odor

Current onsite practices to minimize odors and the current odor complaint response program developed for ongoing KHF waste operations will continue to be used for the Project. (DSEIR, p. 2-25.)

Closure, Post-Closure, and Financial Assurance

Closure and Post-Closure Maintenance Plans

For the Project, the existing closure and post-closure plans for B-19 will be revised and updated, as necessary, to address the bioreactor. These plans will assure that the B-19 bioreactor unit and control unit will be closed in a manner to protect the public health and environment and will assure that adequate financial resources, as well as post-closure monitoring and maintenance, will be available to accomplish closure. (DSEIR, p. 2-26.)

Preliminary closure and post-closure plans for new or expanded landfills must be submitted with the initial application for a Solid Waste Facility Permit (SWFP). Preliminary revised and updated closure and post-closure plans will be prepared for the B-19 bioreactor unit and control unit and submitted to the LEA, CIWMB, and RWQCB as part of the permitting process. In addition, prior to closure of B-19, final closure and post-closure plans will be submitted to the Department of Toxic Substances Control (DTSC), CIWMB, RWQCB, and LEA for approval as needed. (DSEIR, p. 2-26; FSEIR Response to Comment Letter 05.)

Grading and Final Cover

The proposed final grading plan includes a maximum waste elevation of 945 feet above msl at the center of the top deck, which is sloped at approximately 5 percent. The top deck joins the perimeter side slopes, producing an effective slope of 3:1 with benches. (DSEIR, p. 2-27.)

Proposed final grading and cover plans will be prepared and submitted to the LEA, CIWMB, DTSC and RWQCB. As part of the final closure of B-19, which includes the bioreactor and control unit, a monolithic or equivalent final cover is proposed, in accordance with applicable regulations. (DSEIR, p. 2-27; FSEIR, Response to Comment Letter 05.)

Monitoring and Maintenance

Post-closure requirements for Class II/III landfills are set forth in CCR Title 27, requiring landfills to be maintained and monitored after final closure. A revised post-closure monitoring and maintenance plan for B-19 that includes the Project will be prepared as part of the application for the revised SWFP. At a minimum, the post-closure plan will also include the elements required by CCR Titles 27 and 22, as needed. If, at the end of the regulatory post-closure period (currently a minimum of 30 years), CWMI demonstrates that the B-19 landfill (bioreactor and control unit) poses no threat to public health and safety, or the environment, then post-closure monitoring and maintenance can be terminated once approved by the applicable regulatory agencies. (DSEIR, p. 2-27.)

Landfill Gas/Leachate Control System

Landfill gas monitoring probes at the B-19 bioreactor will be monitored during the post-closure period in accordance with CCR Titles 27 and 22 as needed. Surface monitoring will be implemented if necessary to comply with regulations. Gas collection piping and headers will be inspected in accordance with CCR Title 27 and repaired as needed.

Inspections will include checking for damaged or leaking pipes, and adequacy of the drainage slope. Gas condensate/leachate quality will be analyzed in accordance with CCR Title 27. The total quantity of gas condensate/leachate pumped from the holding tank will be reported in accordance with CCR Title 27. (DSEIR, p. 2-27.)

Groundwater Monitoring

Monitoring of the groundwater will continue to be conducted at B-19 during operations, closure, and post-closure. Sampling and analysis will be conducted and reported in accordance with the WDRs and CCR Titles 27 and 22. The monitoring wells will be inspected for vandalism or damage and, if necessary, repaired in accordance with the applicable California Code of Regulations.

Final Cover

The final cover of B-19 will be inspected during the post-closure period in accordance with CCR Titles 27 and 22. The surface will be inspected for cracks, eroded areas, localized depressions, or other damage. Maintenance, such as filling cracks and depressions, will be completed as necessary.

The vegetative cover at B-19 will also be inspected in accordance with CCR Title 27. To reduce the need for irrigation, reseeding will be accomplished, if necessary, just prior to or during the rainy season. Topographic maps will be prepared in accordance with CCR Title 27 from aerial photographs to compare with surveyed settlement data. (DSEIR, p. 2-28.)

Drainage Control System

The drainage control system at B-19 will be inspected in accordance with the WDRs and CCR Title 27. Broken pipes or other damage will be repaired as needed. Obstructions to the drainage channels, such as accumulated vegetation or other conditions that could impair the function of the system, will be removed or otherwise mitigated. Channels and berms will be regraded and shaped as necessary. (DSEIR, p. 2-28.)

Closure and Post-Closure Funding

CCR Title 27 requires the operator of a Class II/III landfill to demonstrate the financial ability to pay for closure, and for post-closure monitoring and maintenance. CCR Title 22 contains similar provisions for the post-closure monitoring and maintenance of hazardous waste landfills. It also requires estimated costs for closure and post-closure monitoring and maintenance to be included in the preliminary closure plan for the landfill. The estimated costs for closure and post-closure are subject to periodic review and revision to assure that funding levels continue to meet projected requirements. (DSEIR, p. 2-28.)

DISCRETIONARY APPROVALS

Kings County is the Lead Agency under the California Environmental Quality Act for the purposes of implementing the Project. Kings County presently anticipates that the Project would require the following actions:

Kings County

Kings County Planning

- Certification of the B-19 Landfill Subsequent Environmental Impact Report ("SEIR") prior to any discretionary action approving the Project.
- Adoption of the findings of fact and statement of overriding considerations and Mitigation Monitoring Program.
- Modification of the current CUP for the site to allow construction and operation of the bioreactor unit within the existing permitted B-19 Class II/III Landfill, increase in daily tonnage of designated and msw to 2,000 tpd, and the inclusion of Saturday operations.

Kings County Department of Environmental Health (LEA)

- Revision of the Solid Waste Facility Permit (SWFP) for the site to include operation of the bioreactor unit within B-19; revised closure grades for B-19; increase in daily tonnage of designated and municipal solid waste to 2,000 tpd; to allow no tonnage limit on Class II soils received for beneficial use, or on wastes received for use as approved ADC; to allow receipt of up to 800 tpd of liquids and high-moisture content waste; inclusion of Saturday operations; and a revised final closure plan for B-19.

Central Valley Water Board

- Modify the existing Waste Discharge Requirements (WDRs) to include construction and operation of the bioreactor, and modify the B-19 footprint and contours.

California Department of Toxic Substances Control (DTSC)

- Approval of the revised closure as it pertains to the hazardous waste portion of B-19.

San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD)

- Issuance of Authority to Construct and Permit to Operate the landfill gas collection system and landfill gas flare system as part of the bioreactor.

California Integrated Waste Management Board

- Concurrence in the revision of the SWFP for the site, to include operation of the bioreactor unit within B-19, increase in daily tonnage of designated and municipal solid waste to 2,000 tpd, inclusion of Saturday operations, and revised closure of B-19.

(DSEIR, p. 1-12.)

IV.
BACKGROUND

Historical Environmental Review at KHF

The current operations at KHF were permitted in compliance with CEQA based on the following environmental documentation:

A 1985 EIR prepared by CH2M Hill addressed expansion of the site from 1,280 acres to 1,600 acres, additional waste treatment facilities, construction of three new hazardous waste disposal facilities (Landfills B-17, B-18, and B-19), and provided the basis for approval of the Conditional Use Permit (CUP) 1412. Landfill B-18 currently is operating as a Class I/Class II waste disposal facility and B-19 currently is operating as a Class II/ Class III disposal facility. Landfill B-17 has not been constructed.

A 1997 SEIR prepared by TRC analyzed the potentially significant adverse impacts from the disposal of municipal solid waste in B-19 and provided the basis for CUP No. 97-05. In November 1998, the remaining capacity of B-19 was thereby converted from a Class I landfill to a Class II/III landfill, with a disposal capacity of 4.4 million cy. (DSEIR, pp. 1-2 to 1-3.)

A 2001 Addendum to the FSEIR prepared by TRC which considered the potential effects of a proposed minor refinement to the combined receipt of up to 1,400 tpd of designated soil and msw (e.g., to allow the site to accept more than 800 tpd of Class II/III waste if less than 600 tpd of Class II designated soils is received per day for daily cover; not to exceed 1,400 total tpd, 600 tpd of Class II designated soils or the number of truck trips analyzed as part of the 1997 SEIR process).) (Addendum, p. 1.)

Environmental Review of the Proposed Project

On September 3, 2003, a NOP/Initial Study for the Bioreactor Project was distributed to potentially interested agencies and individuals for a 30-day review period. Copies of the NOP and Initial Study are included in Appendix A to the DSEIR. (FSEIR, p. 1-9.)

A public scoping meeting was held on the afternoon of September 30, 2003, by the Kings County Environmental Review Committee (ERC) to provide an opportunity for the public and agencies to submit verbal comments on issues to be addressed in the Draft SEIR. (FSEIR, p. 1-9.)

Kings County and CWMI also held a public scoping workshop in Kettleman City during the evening of September 30, 2003. This public workshop provided an opportunity for the public to learn about the Project and to submit verbal and/or written comments regarding the issues to be addressed in the Draft SEIR. (FSEIR, p. 1-9.)

Notifications of the meetings included: (1) notices to local and regional media sources; and (2) a bilingual (in English and Spanish) direct mailing of an announcement by KHF to Post Office Box holders in Kettleman City. Those not able to attend were invited to submit written comments. Public comments were taken into consideration in preparing the Draft SEIR. Copies of public notification of the scoping meeting, workshop, and letters in response to the NOP are included in Appendix B to the FSEIR. (FSEIR, p. 1-9.)

The Draft SEIR was released for a 45-day public review period, and was provided to interested individuals, groups, and government representatives, on request, and trustee and responsible agencies through the Office of Planning and Research (OPR). The availability of the Draft SEIR was noticed by Kings County with a Notice of Completion sent to the California Office of Planning and Research, State Clearinghouse, on November 1, 2004. Notification of availability of the Draft SEIR was made to those on the Project mailing list and to the local media. (FSEIR, p. 1-9.)

Bilingual copies of the Draft SEIR Executive Summary were mailed by KHF to post office box holders in Kettleman City. A bilingual announcement of the public meetings to open and close the 45 day public review period for the DSEIR was also included with the mailing of the Executive Summary. (FSEIR, p. 1-9.)

A Public meeting was held by the Kings County Planning Agency on November 1, 2004, at the beginning of the 45-day public review and comment period. A second public meeting was held by the Kings Count Planning Agency on December 16, 2004, at the end of the 45-day public review and comment period. The meetings provided the public with an opportunity to submit written and verbal comments on the Draft SEIR. (FSEIR, p. 1-10.)

On May 20, 2005, the County distributed and noticed for public availability the Final SEIR, including responses to the comments received and the Mitigation and Monitoring Plan, for a 10-day public review period to the persons who had submitted written comments on the DSEIR. In addition, on May 20, 2005, a notice of public hearing to consider the FSEIR was published and mailed to the distribution list used for the Notice of Preparation and anyone else who commented on the Draft SEIR or requested notice of the Project in compliance with CEQA. (See DSEIR, p. 1-17.)

The project applicant (KHF) provided a bilingual notice of the availability of the Final SEIR and Planning Commission hearing date on the Final SEIR and CUP to post office box holders in Kettleman City. KHF also provided an English/Spanish translator to attend the Planning Commission hearing on the project so that all attendees had an opportunity to understand the proceedings.

V.
RECORD OF PROCEEDINGS

The record of proceedings for the County's decision on the Project includes but is not limited to the following documents:

- Comments received from the scoping meeting and workshop held on September 30, 2003, in Hanford and Kettleman City, California, regarding the preparation of the SEIR;

- The NOP signed September 2, 2003, and distributed on September 3, 2003, and all other public notices issued by the County in conjunction with the Project;

- The Draft Subsequent Environmental Impact Report for the B-19 Landfill Bioreactor Project ("DSEIR"), including all documents referred to or relied upon therein;

- All comments submitted by agencies or members of the public during the 45-day comment period on the Draft SEIR;

- All comments and correspondence submitted to the County with respect to the Project, in addition to timely comments on the Draft SEIR;

- All findings and resolutions adopted by the County in connection with the B-19 Landfill Bioreactor Project, and all documents cited or referred to therein;

- All reports, studies, memoranda (including internal memoranda not protected by the attorney-client privilege), maps, staff reports, or other planning documents relating to the Project prepared by the County, consultants to the County, or responsible or trustee agencies with respect to the County's compliance with the requirements of CEQA and with respect to the County's action on the B-19 Landfill Bioreactor Project;

- All documents submitted to the County (including the Planning Commission and Board of Supervisors) by other public agencies or members of the public in connection with the Project, up through the close of the public comment period and hearing;

- Any minutes and/or verbatim transcripts of all information sessions, public meetings, and public hearings held by the County in connection with the B-19 Landfill Bioreactor Project;

- Any documentary or other evidence submitted to the County at such information sessions, public meetings and public hearings;

- The relevant files and the materials submitted by the applicant, Chemical Waste Management, Inc.

- Matters of common knowledge to the County, including, but not limited to Federal, State, and local laws and regulations;

- Any documents expressly cited in these findings, in addition to those cited above;

- Any other materials required for the record of proceedings by Public Resources Code section 21167.6, subdivision (e); and

- The Final Subsequent Environmental Impact Report for the B-19 Landfill Bioreactor Project ("FSEIR"), including all documents referred to or relied upon therein.

The official custodian of the record is the Secretary of the Kings County Planning Commission, located at 1400 West Lacey Boulevard, Government Center, Building No. 6, Hanford, California 93230.

VI.
FINDINGS REQUIRED UNDER CEQA

Public Resources Code section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would *substantially lessen* the significant environmental effects of such projects[.]" (Emphasis added.) The same statute states that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will *avoid* or *substantially lessen* such significant effects." (Emphasis added.) In the event that specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof. (Pub. Resources Code, § 21002.)

The mandate and principles announced in Public Resources Code section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. (See Pub. Resources Code, § 21081, subd. (a); CEQA Guidelines, § 15091, subd. (a).) For each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The first such finding is that "[c]hanges or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR." (CEQA Guidelines, § 15091, subd. (a)(1).) The second permissible finding is that "[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency." (CEQA Guidelines, § 15091, subd. (a)(2).) The third potential conclusion is that "[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR." (CEQA Guidelines, § 15091, subd. (a)(3).)

Public Resources Code section 21061.1 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." CEQA Guidelines section 15364 adds another factor: "legal" considerations. (See also *Citizens of Goleta Valley v. Board of Supervisors* ("*Goleta II*") (1990) 52 Cal.3d 553, 565; *City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 ("feasibility" also encompasses desirability to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors and whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project).)

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modification or alternatives are not required, however, where such changes are infeasible or where the responsibility for modifying the project lies with some other agency. (CEQA Guidelines, § 15091, subd. (a), (b).)

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (CEQA Guidelines, §§ 15093, 15043, subd. (b); see also Pub. Resources Code, § 21081, subd. (b).)

These findings constitute the County's best efforts to set forth the evidentiary and policy bases for its decision to approve the Project in a manner consistent with the requirements of CEQA. To the extent that these findings conclude that various proposed mitigation measures outlined in the Final SEIR are feasible and have not been modified, superseded or withdrawn, the County hereby binds itself to implement these measures. These findings, in other words, are not merely informational, but rather constitute a binding set of obligations that will come into effect when the Commission adopts a resolution approving the Project.

VII.
MITIGATION AND MONITORING PLAN

A Mitigation and Monitoring Plan ("MMP") was prepared for the Project and approved by the County by the same resolution that has adopted these findings. (See Pub. Resources Code, § 21081.6, subd. (a)(1); CEQA Guidelines, § 15097.) The County will use the MMPs to track compliance with Project mitigation measures. The MMP is included as Appendix A to the Final SEIR, and will remain available for public review during the compliance period. (FSEIR, pp. 1-4, 1-8, 3-27: Response 04/8.)

VIII.
POTENTIALLY SIGNIFICANT EFFECTS AND MITIGATION MEASURES

The Final SEIR identified several beneficial, significant and potentially significant environmental effects (or "impacts") that may occur under the Project. Some of these significant effects can be fully avoided through the adoption of feasible mitigation measures (See MMP, FSEIR Appendix A). Other effects cannot be avoided by the adoption of feasible mitigation measures or alternatives, and thus will be significant and unavoidable. Some of these unavoidable significant effects can be substantially lessened by the adoption of feasible mitigation measures. Other significant, unavoidable effects cannot be substantially lessened or avoided. For reasons set forth in Section XIII *infra*, however, the County has determined that the significant, unavoidable effects of the Project are outweighed by overriding economic, social, and other considerations.

A. GEOLOGY AND SOILS

Impact: 3.2.4.1.1: Nonseismic Hazards

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: Nonseismic geologic hazards (collapsible soil conditions, excessive settlement, or ground subsidence) representing significant impacts to the Project or impacts of the Project on the environment have not been identified in the various geologic studies conducted for existing operations at KHF. Nonseismic geologic hazards were considered in the design criteria for the Project in accordance with the California Code of Regulations. (DSEIR, p. 3.2-10.)

Site conditions do not indicate the potential for collapsible soils or ground rupture due to faulting, subsidence, or liquefaction during earthquake ground shaking. Surface soils at KHF consist of weathered bedrock and Holocene deposits of valley fill alluvium and colluvium. Deformation or surface rupture of the Holocene deposits at the site have not been reported. (DSEIR, p. 3.2-10.)

The consolidated sedimentary bedrock of the San Joaquin Formation beneath existing waste operations at KHF, plus the deep groundwater (greater than 50 feet bgs) conditions beneath the site, preclude the potential for subsidence or liquefaction during earthquake ground shaking or excessive settlement. The San Joaquin Formation consists of fine-grained silty sandstone, siltstone, and claystone with occasional beds of coarser sandstone and conglomerate. While there is potential for landslides at exposed slopes during earthquake ground shaking, proper engineering and compliance with the California Code of Regulations (CCR), including Title 27, will ensure that the design of permanent slopes associated with the proposed Project will include an appropriate

minimum factor of safety of 1.5 under dynamic conditions for allowable displacement, and be able to withstand the maximum credible earthquake as required by CCR Title 27. (DSEIR, pp. 3.2-10 to 3.2-11; FSEIR, p. 2-3.)

Mitigation Measures: Nonseismic geologic conditions will not result in significant impacts to the Project. Nonetheless, the project proponent will implement the following measure:

GS-MM.1 As part of the existing inspection and monitoring program established for existing operations at KHF, after occurrence of an earthquake of M5.0 or greater within 25 miles of the site, or an M6.0 earthquake or greater within 50 miles of the site, a post-earthquake inspection of Project structures shall be conducted to determine the integrity of landfill structures and systems. In the event that damage to landfill structures and systems has resulted, appropriate measures shall be initiated to correct earthquake-related damage.

(DSEIR, p. 3.2-13, Table ES-1; Final SEIR, Appendix A, p. A-1, Table 1-1.)

Significance After Mitigation: The design, operational procedures, mitigation measures and regulatory requirements applicable to the Project will reduce impacts related to nonseismic geologic conditions to below a level of significance. (DSEIR, p. 3.2-13.)

Impact 3.2.4.1.2: Seismic Hazards

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: It is expected that ground shaking-induced forces have the potential to be the most substantial geologic-related stresses on the Project. The Project will be designed to withstand the MCE without damage to foundations or to the structures that control leachate, surface drainage, erosion, or landfill gas. (DSEIR, p. 3.2-11.)

Based on the estimated magnitudes for regional faults, the KHF is likely to experience ground shaking due to regional seismic activity. However, results of the static and seismic stability analyses, and deformation analyses for the estimated ground motions due to near-field and far-field events, show that the Project will withstand the earthquake shaking effects so that impacts and hazards to the Project will not be significant (HAI 2003). (DSEIR, p. 3.2-12.)

Mitigation Measure: Seismic geologic conditions will not result in significant impacts to the Project. However, to assure that potential impacts remain below a level of significance, the Project proponent shall implement mitigation measure GS-MM.1. (DSEIR, p. 3.2-13.)

Significance After Mitigation: The design, operational procedures, and regulatory design requirements for the Project will reduce impacts related to seismic geologic conditions to below a level of significance. (DSEIR, p. 3.2-13.) Thus, seismic geologic conditions will not result in significant impacts to the Project.

Impact 3.2.4.2: Closure/Post-Closure

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: The Project will not result in significant impacts from geologic or seismic conditions by implementing the proposed design and operational procedures. Additionally, monitoring and continued maintenance of the bioreactor unit and control unit during closure and post-closure in compliance with Titles 27 and 22 of the California Code of Regulations will mitigate the potential for significant impacts. (DSEIR, p. 3.2-12.)

Seismicity and stability evaluations discussed in Section 3.2.4.1.2 of the DSEIR identify potential impacts from geologic or seismic conditions, including during the closure/post-closure period. As discussed, impacts will be less than significant. (DSEIR, p. 3.2-12.)

Mitigation Measure: Closure/Post-Closure conditions will not result in significant impacts, however, to ensure that potential impacts remain below a level of significance, the Project proponent shall implement mitigation measure GS-MM.1. (DSEIR, p. 3.2-13.)

Significance After Mitigation: The design, operational procedures, and regulatory requirements for the proposed Project will ensure that potential impacts related to seismic geologic conditions during closure/post-closure of B-19 will remain below a level of significance. (DSEIR, p. 3.2-13.) Thus, seismic geologic conditions will not result in significant adverse impacts under the proposed Project.

B. HYDROLOGY AND WATER QUALITY

Impact 3.3.3.1.1: Groundwater Quality (Proposed Operations)

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, voluntary measures have been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: Although groundwater beneath KHF is not a potential source of drinking water, impacts to groundwater quality from the Project could occur in the following ways:

- Seepage of leachate from the landfill through the vadose (unsaturated) zone to groundwater; and
- Landfill gas migration into the vadose zone, resulting in the dissolution of trace gases into the underlying groundwater. (DSEIR, p. 3.3-9.)

Leachate is defined as a liquid that can be generated by the percolation of moisture through solid waste or from decomposition or release of liquids. The actual chemical makeup varies depending on the types of waste the landfill has accepted. One principal property of leachate is pH. Typical pH of municipal waste landfills ranges from 6 to 8. Current information indicates the pH of bioreactors is within the same range as a standard landfill. EPA 9090 Method tests with municipal solid waste leachate have shown that liner properties are not impacted by pH in this range. Landfill gas, which consists primarily of methane and carbon dioxide, refers to the gases generated as the organic component of municipal solid waste (e.g., food waste, yard waste, and other organic waste) decomposes. (DSEIR, p. 3.3-9.)

Leachate or landfill gas from the Project potentially could reach groundwater beneath KHF by migrating downward through the unsaturated soils. While downward migration through the unsaturated zone is possible, the ability of the constituents of leachate and landfill gas to migrate through the unsaturated zone depends on the hydrogeologic conditions at KHF. (DSEIR, p. 3.3-9.)

The San Joaquin Formation has a vertical thickness of approximately 2,300 feet of interbedded sandstone, siltstone, and claystone strata, while the outcrop pattern has a thickness of approximately 6,000 feet. The siltstone and claystone strata are less permeable than the sandstone strata. While the sandstone strata are able to transmit and yield water and are considered aquifers, the water-bearing zones beneath KHF are isolated hydraulically from one another by intervening siltstone and claystone intervals. Water-bearing zones beneath the site range from 290 to greater than 600 feet below ground surface (bgs). In addition, the hydrogeologic system is characterized by laterally confined and restricted flow paths, small ambient gradients, low flow rates, and geographic and hydraulic isolation from regional groundwater sources. Therefore, it is expected that leachate and/or landfill gas associated with the Project will not come in contact with the groundwater and will not result in a significant impact to groundwater quality. (DSEIR, pp. 3.3-9 to 3.3-10.)

Leachate and landfill gas may contain trace constituents from the waste. If leachate and/or landfill gas come in contact with groundwater, there is a potential that trace constituents that may be contained in the leachate or landfill gas could affect groundwater quality. Recognizing the potential that landfills have for affecting groundwater quality, state and federal regulations include specific requirements for liner systems, leachate management systems, and landfill gas control systems. These systems will meet or

exceed state and federal regulations and will assure that leachate and landfill gas are managed and controlled as part of the Project. (DSEIR, p. 3.3-10.)

Liner System

The initial temperatures of liner systems usually are based upon the resident temperature of the underlying soil formation. As waste is placed in the landfill and the biodegradation proceeds, heat is transferred to the liner system and dissipated in the underlying soil formation. As the biodegradation process is completed, the heat dissipates and returns to the initial temperatures. (DSEIR, p. 3.3-10.)

One of the principal purposes of bioreactors is to accelerate the biodegradation of waste. The microbial processes generate heat in both standard and bioreactor landfills. The accelerated biodegradation process generates increased heat. Typical temperatures for standard landfills range from 25 to 35 degrees Celsius (°C), and bioreactors from 55 to 65°C. The heat eventually is transmitted to the liner system either by convection or leachate draining into the leachate collection and removal system (LCRS). However, as biodegradation ceases, heat generation ceases and gradually dissipates. (DSEIR, p. 3.3-10.)

The short-term impacts (in terms of the active life of the landfill until closure) of temperature on high-density polyethylene (HDPE) liners have been studied for many years. The EPA 9090 Method test is used to estimate the impact that exposure of leachate to liners will have. Liner specimens have been incubated in leachate at temperatures of 50°C. After aging, the material properties (tensile strength, tear strength, and puncture) are tested. Studies have demonstrated that elevated temperature impacts on HDPE liner properties are negligible. (DSEIR, p. 3.3-10.)

Research indicates that long-term exposure (i.e., during the initial 3 to 5 years after closure) to elevated temperatures will shorten the life of HDPE liners. Since waste biodegradation is a short-term process, liner temperatures will return to the underlying soil formation temperatures. Therefore, long-term impacts on the HDPE liner due to bioreactors is expected to be minimal. (DSEIR, pp. 3.3-10 to 3.3-11.)

Leachate Management System

Bioreactor Unit

Leachate generated by the bioreactor will be controlled by the following:
The bioreactor leachate management system will be designed to recirculate rather than discharge the leachate and other liquids within the waste prism for the duration of bioreactor operations
The bioreactor unit will be designed to reduce the amount of storm water runoff entering the unit, thus controlling the volume of water percolating into the waste

(DSEIR, p. 3.3-11.)

Control Unit
The amount of leachate expected to be generated from the control unit is limited due to the following factors:

- KHF is located in a semiarid area with a limited amount of rainfall that can percolate into the waste prism
- The control unit will be designed to reduce the amount of storm water runoff entering the unit, thus controlling the volume of water percolating into the waste
- Municipal solid waste and designated waste expected to be disposed at the control unit is relatively dry (i.e., typical moisture content of approximately 20 to 25 percent)

(DSEIR, p. 3.3-11.)

The liner and leachate management systems for the B-19 landfill have been designed as required by CCR Title 22, where appropriate, and Title 27 to meet or exceed federal and state requirements. As required by CCR Title 27, Chemical Waste Management, Inc. (CWMI) will monitor and collect leachate generated by the control unit. The collected liquids will be recirculated to the bioreactor unit, used for dust control within the B-19 landfill, or placed in one of the existing lined and permitted evaporation ponds at KHF. In addition, as required by CCR Titles 27 and 22, CWMI will monitor, collect, treat, and dispose of leachate from the bioreactor unit and control unit during the post-closure monitoring and maintenance period or until the California Integrated Waste Management Board (CIWMB), Central Valley Water Board, and the Local Enforcement Agency (LEA) determine that leachate is no longer being generated or that discharge of leachate would not adversely affect water quality. (DSEIR, p. 3.3-11.)

Due to the B-19 landfill liner system and leachate management system, which is required by regulation to maintain levels of leachate to less than 30 centimeters (cm) on the liner, and the collection and monitoring of leachate generated at the landfill, the proposed Project is not expected to release leachate to groundwater. Therefore, leachate from the proposed Project will not result in a significant impact to groundwater quality. (DSEIR, pp. 3.3-11 to 3.3-12.)

Landfill Gas Control System
The liner and final cover systems will restrict landfill gas migration from B-19. In addition, a landfill gas collection system will be installed within the waste prism of B-19 to control migration of landfill gases from the landfill. The system will have horizontal collection trenches filled with gravel and pipes within each waste mass to allow a corridor for landfill gas to be collected. Blowers will be connected to the horizontal collection trenches to provide a vacuum to pull the landfill gas out of the waste. Once the landfill gas is collected, it will be combusted in an enclosed flare. As B-19 reaches final grades, vertical collection wells will be installed through the final cover system to continue to collect landfill gas. A traditional landfill unit, such as the control unit, may produce landfill gas over 30 years. A bioreactor unit will have a higher rate of landfill gas generation, although within a shorter time frame, thereby reducing the time frame for landfill gas emissions compared to a traditional dry unit. The landfill gas collection

system will reduce the potential for gas to migrate beyond the Class II/III waste prism of B-19 by preventing excessive accumulation of landfill gas within the waste. (DSEIR, p. 3.3-12.)

The collected landfill gas from B-19 will be flared at an onsite landfill gas flare station. As landfill gas is collected, it cools, and moisture condenses in the collection system. This moisture, referred to as landfill gas condensate, is collected in specifically designed sumps. This condensate will be combined with collected leachate described above. While B-19 is open, the combined liquid will either be reintroduced into the bioreactor unit or applied to the surface of B-19 for dust control. After closure of B-19, the combined liquid will be placed in one of the existing lined and permitted evaporation ponds at KHF. Alternatively, some flare systems are designed to flare small volumes of liquid; and, if so designed, the condensate could be routed to the onsite flare station. (DSEIR, p. 3.3-12.)

Landfill gas monitoring probes are installed around the perimeter of B-19 to monitor methane concentrations and to detect gas migration that might occur. This monitoring will continue during the closure and post-closure monitoring maintenance period, as required by CCR Title 27, Sections 21160 and 21180. (DSEIR, p. 3.3-12.)

The existing liner system and landfill gas control system at B-19 are designed to prevent landfill gas from coming into contact with groundwater. The landfill gas control system will be modified, as appropriate pursuant to the CCRs, to meet the needs of the proposed Project. As a result, landfill gas is not expected to come into contact with groundwater. Therefore, landfill gas from the Project will not result in a significant impact to groundwater quality. (DSEIR, pp. 3.3-12 to 3.3-13.)

Mitigation Measure: The Project will not result in significant impacts to groundwater or surface water resources due to the design of the Project, which will assure that impacts to surface and groundwater resources from the Project will remain below a level of significance. However, to assure that the potential impacts remain below a level of significance, the Project proponent shall implement the following mitigation measure:

MM-HW.1 The Project proponent shall implement the following requirements:

- Liquid waste storage and injection system for the bioreactor will be checked each operating day to assure there are no leaks in the aboveground lines.
- Drainage structures, such as the perimeter drainage channels, evaporation ponds, storm water retention basins, and collection pipes and ditches, will be inspected and maintained on a regular basis.
- Routine seeps from exposed side slopes will be detected by visual inspection and repaired immediately.

(DSEIR, p. 3.3-16; Final EIR, Appendix A, p. A-1.)

Significance After Mitigation: The design, operational procedures, and regulatory requirements for the Project will reduce impacts to groundwater and surface water resources to below a level of significance. (DSEIR, p. 3.3-16.) Thus, the Project will not result in significant impacts to groundwater or surface water resources.

Impact 3.3.3.1.2: Groundwater Quantity (Proposed Operations)

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: The Project will utilize the potable and nonpotable water supplies and systems that support existing operations at KHF. Potable water is supplied to KHF via pipeline from the City of Avenal and via truck, with water provided by the Kettleman City Services District. Nonpotable water is provided via pipeline from Kettleman City and via truck from a private well near Kettleman City. Bottled water is used for drinking. Nonpotable water currently is used at KHF for dust control and soil moisture conditioning (e.g., clay liners). Potable water is distributed via a piping system that supplies the site buildings for domestic, industrial, and fire protection purposes. No potable or nonpotable water from the local area (Avenal aqueduct or Kettleman City water wells) will be used for the bioreactor. (DSEIR, p. 3.3-13.)

No upgrades, expansions, or extensions of the existing water supply or water systems will be required to support the Project. The addition of five employees is not expected to noticeably affect existing water use. Based on the above, the Project will not result in changes in water use at KHF or in the local area. There will not be an impact on groundwater quantity as a result of water use for the Project. (DSEIR, p. 3.3-13.)

Mitigation Measure: No mitigation required. The Project will not result in significant impacts to groundwater or surface water resources.

Impact 3.3.3.1.3: Surface Water (Proposed Operations)

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, voluntary measures have been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: A surface-water drainage system has been designed and constructed at KHF to assure that storm water runoff neither affects nor is affected by existing waste operations. This drainage system is designed to accommodate flows from the PMP event as required by CCR Title 27. Collector ditches and swales that are installed around the perimeter of B-19 meet the requirements of CCR Title 27 for Class II/III landfills. This system accomplishes the following:

- Diverts and collects precipitation or tributary runoff
- Prevents inundation and ponding

- Prevents runoff of water into landfills
- Prevents erosion or washout of deposited waste

The Project will utilize the existing surface water system with no upgrades, expansion, or extension of the system required. (DSEIR, p. 3.3.-13.)

The surface water drainage system will be protected from the high-moisture-content waste that will be received at the site. The high-moisture-content waste will be stored in a tank located near the bioreactor at B-19. The area around the tank will be bermed to provide secondary containment. The berm will contain spillage and prevent runoff from entering the KHF surface water drainage system. The system will be checked each operational day to assure there are no leaks in the aboveground lines. Routine seeps from exposed side slopes will be detected by visual inspection and repaired immediately. (DSEIR, pp. 3.3-13 to 3.3-14.)

As required by CCR Title 27, the surface water drainage system at KHF is designed to accommodate flows from the 1,000-year, 24-hour storm, and the PMP event. Collector ditches and swales are installed around the perimeter of each landfill to prevent runoff from waste operations from flowing off the site. Surface water drainage at KHF is collected and routed to onsite retention basins for evaporation and, under maximum precipitation conditions, discharge. Therefore, the Project will not impact onsite surface water quality. (DSEIR, p. 3.3-14.)

As discussed above, bodies of standing water do not occur at or in the vicinity of KHF. The nearest body of surface water is the California Aqueduct that flows through the region and is located approximately 3 miles east of KHF. The aqueduct has been designed to prevent possible contamination by local surface waters. Therefore, based on the surface water drainage control system at KHF that will support the Project, plus the distance from the site of bodies of standing water, the Project will not impact offsite surface water quality. (DSEIR, p. 3.3-14.)

The property boundary for KHF is located approximately 0.5-mile beyond and at least 200 feet above the 100-year floodplain mapped for the region by FEMA. The Project area (B-19 landfill) is located approximately 5,000 feet from the nearest area mapped as a 100-year floodplain. Therefore, flooding will not have an impact on the Project. (DSEIR, p. 3.3-14.)

Mitigation Measure: The Project will not result in significant impacts to groundwater or surface water resources due to the design of the Project, which will assure that impacts to surface and groundwater resources from the Project will remain below a level of significance. However, to assure that the potential impacts remain below a level of significance, the Project proponent shall implement mitigation measure *MM-HW.1.* (DSEIR, p. 3.3-16.)

Significance After Mitigation: The design, operational procedures, and regulatory requirements for the Project will reduce impacts to groundwater and surface water resources to below a level of significance. (DSEIR, p. 3.3-16.) Thus, the Project will not result in significant impacts to groundwater or surface water resources.

Impact 3.3.3.2.1: Groundwater Quality (Closure/Post-Closure)

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Requirements for development and approval of closure and post-closure monitoring and maintenance plans for Class I/II/III landfills and implementation of these plans are set forth in CCR Titles 22, 27 and 40 CFR Part 258 Subparts F and G. These plans will be prepared and submitted to the Central Valley Water Board, LEA, DTSC and the CIWMB to assure that the B-19 landfill is closed in a manner to protect the public health and environment, and to assure that adequate financial resources will be available to accomplish closure and post-closure monitoring and maintenance of the B-19 landfill. (DSEIR, p. 3.3-14; FSEIR, p. 2-3.)

Installation of the final cover, and continued operation and maintenance of the leachate management system and landfill gas collection system at the B-19 landfill during the post-closure monitoring and maintenance period, will significantly reduce the possibility of potential effects of the landfill on groundwater in the vicinity of KHF. Additionally, the groundwater monitoring system will provide the earliest possible detection if a release to groundwater occurs during operation of the Project and/or during the post-closure period. In the unlikely event of a release from the B-19 landfill, appropriate measures developed in accordance with CCR Titles 27 and 22 will be implemented, if needed, to ensure groundwater quality is unaffected. Therefore, closure and post-closure of the Project will not result in significant impacts to groundwater quality. (DSEIR, pp. 3.3-14 to 3.3-15.)

Mitigation Measure: The Project will not result in significant impacts to groundwater or surface water resources during closure and post-closure due to the design of the Project and regulatory requirements, which will assure that impacts to surface and groundwater resources from the Project will remain below a level of significance.

Significance After Mitigation: The Project will not result in significant impacts to groundwater or surface water resources. Implementation of the design, operational procedures, and regulatory requirements and the mitigation measures will assure that potential impacts to water resources remain below a level of significance. (DSEIR, p. 3.3-16.)

Impact 3.3.3.2.2: Surface Water (Closure/Post-Closure)

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: The designed final contours and grades for B-19 as a Class II/III disposal facility, will be adhered to for the Project. Maximum slopes will be equivalent to 3:1 on the side slopes. The top of each lift (and the final cover) will also be at 3:1 slopes. These grades will minimize flow velocity and erosion. Drainage ditches situated over the landfill would be lined with low permeability soil. Surface water drainage facilities have been designed to accommodate estimated flows from the PMP storm event, as required by CCR Title 27. Therefore, closure and post-closure of the landfill will not result in significant impacts to surface water quality. (DSEIR, p. 3.3-15.)

Mitigation Measure: The Project will not result in significant impacts to groundwater or surface water resources due to the design of the Project and the applicable regulatory requirements pertaining to closure/post-closure monitoring and final design, the requirements ensure that impacts to surface and groundwater resources from the Project will remain below a level of significance. No Mitigation required.

C. LAND USE AND PLANNING

Impact 3.4.3.1: Modification to Conditional Use Permit

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: The KHF will need to obtain a modification to CUP No. 97-05 for the Project. The bioreactor unit is a demonstration bioreactor project as provided in 40 Code of Federal Regulations (CFR) Part 258.4, Research, Development, and Demonstration Permits for Municipal Solid Waste Landfills (effective April 21, 2004), *Federal Register,* Vol. 69, No. 55, March 22, 2004. Under this rule, EPA allows an approved state to issue research, development, and demonstration (RD&D) permits for new and existing municipal solid waste landfills and lateral expansions to utilize innovative and new methods that vary from existing criteria for:

- Run-on control systems (Part 258.26[a][1]) and liquid restrictions (Part 258.28[a]) provided the leachate collection system will maintain less than a 30-centimeter depth of leachate on the liner.
- Final cover criteria (Part 258.60[a][1], [a][2] and [b][1]), provided the landfill unit owner/operator demonstrates that the infiltration of liquid through the alternative cover system will not cause contamination of groundwater or surface water, or cause leachate depth on the liner to exceed 30 centimeters.

Under the new rule, any permit issued shall not exceed 3 years, and each renewal of a permit may not exceed 3 years for a total term not to exceed 12 years. (DSEIR, p. 3.4-12.) Alternatively, the Bioreactor portion of the project may be permitted after issuance of final rules under CCR Title 27 for RD&D Projects and currently being considered by the CIWMB. (See www.ciwmb.ca.gov/rulemaking/landfilldemo.)

The Kings County General Plan designates KHF as a "waste disposal and treatment site." Solid waste disposal is a conditional use within the AG-40 zone district of the site. Existing CUP No. 97-05 allows solid waste disposal at the site. The modification to the existing CUP will include operation of the bioreactor unit. As detailed throughout the Draft SEIR, the Project will be designed and operated in a manner that is compatible with surrounding land uses. (DSEIR, p. 3.4-13.)

Mitigation Measure: The Project will require a modification of the existing KHF CUP. The SEIR will be used by the County for consideration of a modified CUP. There are various mitigation measures throughout the Draft SEIR that relate directly or indirectly to land use. Implementation of these measures will assure that impacts to land use remain below a level of significance. No mitigation is required. (DSEIR, pp. 3.4-16 to 3.4-17.)

Impact 3.4.3.2.2: Agricultural Uses

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: As discussed in Section 3.4.1.3 of the Draft SEIR and illustrated in the figure prepared in response to the Department of Conservation's request (FEIR, Response 02/1, Figure 1), the KHF B-19 Landfill is an existing landfill included within Assessor's Parcel Number (APN): 038-320-021 and APN: 038-320-020. These parcels are under Williamson Act contract number 01594, entered into on November 29, 1973. On November 9, 1999, the County approved a notice of nonrenewal for the contract, which expires January 1, 2009. (Draft SEIR, pp. 3.4-3, 3.4-4, and 3.4-13.)

As discussed in the Draft SEIR, the proposed Project would be located within an existing permitted landfill (B-19) and, if approved, would *reduce* the waste disposal area by 11 acres (from approximately 40 acres to 29 acres) from what is currently permitted. (See Draft SEIR, pp. 2-4, 2-5, 3.1-1, and 3.4-13; FSEIR, pp. 2-1, -3.) Because the existing environment evaluated in the Draft SEIR already includes waste disposal operations, and the proposed Project would occur entirely within the existing footprint of B-19, the Project would not result in a direct or indirect conversion of farmland to non-agricultural use or in any increased real or perceived incompatibilities or conflicts with existing agricultural uses or operations. (FEIR, Response to Comment Letter 02/1 and 02/2, pp. 3-11 thru 3-14.)

As explained in Section 3.4.3.2.2 of the Draft SEIR, the proposed Project is consistent with the Kings County General Plan designation of the site for "waste disposal and

treatment." Solid waste disposal is a conditional use within the site's AG-40 zone (Zoning Ordinance, Art. 4, § 405 [D-7]). In addition, as discussed in Section 3.4.3.3 of the Draft SEIR, the Project also is consistent with the Kings County Integrated Waste Management Plan, which establishes County policies for solid waste disposal. (DSEIR, p. 3.4-13.)

As explained below and as discussed in Section 3.4.1.3 of the Draft SEIR, the Project would not conflict with the Williamson Act contract applicable to the site, as entered into in 1973. (Draft SEIR, pp. 3.4-3, 3.4 -4, 3.4-13; FSEIR, Response to Comment Letter 02). The proposed Project would therefore not result in a potentially significant adverse impact to agricultural resources.

When the County originally approved the disposal of waste at KHF in 1979, waste disposal was deemed compatible under the Williamson Act by the County. This conclusion was legally permissible at the time because the Williamson Act itself, at that time, was silent as to the meaning of "compatible use." This statutory silence made compatibility issues the responsibility of local land use agencies such as the County.

Waste disposal operations were also deemed a compatible use by the County at the time the Williamson Act contract was signed in 1973 (Resolution 73-134,[B][10]; see also Land Conservation Contract 01594, provided to the Department under separate cover). The County first adopted the Uniform Rules for Agricultural Preserves in 1970 pursuant to section 51231 of the California Government Code.

Section B.10 of the Uniform Rules for Agricultural Preserves in Kings County continues to include refuse disposal sites as a compatible use in an Agricultural Preserve (County of Kings, *Implementation Procedures for the California Land Conservation Williamson Act of 1965 Including Farmland Security Zone* [November 2, 1998], Appendix A[B][10]). The rules have been amended by adding various uses since 1970 (Implementation Procedures, p. 7.). The proposed Project therefore remains a compatible use as properly determined by the County and is therefore consistent with both the Williamson Act and the Uniform Rules for Agricultural Preserves in Kings County. (DSEIR, p. 3.4-13; FSEIR, Response 02/1 and 02/2, pp. 3-11 thru 3-14.) The Project will not result in disturbing any additional land within B-19 for waste disposal and the Project will not result in any new types of conflicting land uses.

Mitigation Measure: The Project will require a modification of the existing KHF CUP. The SEIR will be used by the County decisionmakers when considering whether or not to approve the modified CUP. There are various mitigation measures throughout the SEIR that relate directly or indirectly to land use. Implementation of these measures will assure that impacts to land use remain below a level of significance. No mitigation required. (DSEIR, pp. 3.4-16 to 3.4-17; FSEIR, Appendix A (MMP).)

Impact 3.4.3.3: County Integrated Waste Management Plan

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Achievement of the source reduction, recycling, and composting goals that are part of the CIWMP for the County and its cities is the responsibility of KWRA, as a regional agency for those jurisdictions that are a part of the KWRA JPA. The DSEIR, therefore, reviews the consistency of the Project with the Siting Element of the CIWMP. As required under AB 939, the Siting Element must contain criteria for the siting of new facilities or the expansion of existing facilities to demonstrate a minimum of 15 years of combined permitted disposal capacity for the County. (DSEIR, p. 3.4-14.)

The Siting Element consists of exclusionary and comparative evaluation criteria. KHF does not meet the exclusionary criteria and, therefore, can be considered for comparative analysis. (DSEIR, p. 3.4-14.)

The Draft SEIR provides the comparative analysis required by the Countywide Siting Element for the Project. The Kings County Board of Supervisors found that Amendment No. 1 to the Siting Element is consistent with the Kings County General Plan. The Siting Element has been amended to allow KHF to accept municipal solid waste. The KHF site is consistent with the goals, objectives, and policies of the CIWMP and the Countywide Siting Element. The Project also is consistent with the goals and objectives of the County General Plan and is an allowable conditional use in the AG-40 zone district. Therefore, the Project meets the criteria of the Countywide Siting Element regarding land use and will not represent an incompatible land use. (DSEIR, p. 3.4-14.)

Mitigation Measure: There are various mitigation measures throughout the SEIR that relate directly or indirectly to land use. Implementation of these measures will assure that impacts to land use remain below a level of significance. No mitigation required. (DSEIR, pp. 3.4-16 to 3.4-17; FSEIR, Appendix A (MMP).)

Impact 3.4.3.4.1: Air Quality Plans

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Projects that are inconsistent with an AQAP are considered to have a significant adverse air quality impact. If a project is inconsistent, there are several options:

- The project could be modified to become consistent.
- Mitigation measures could be applied to reduce or eliminate the inconsistency.

- A nonconforming project could be approved if the lead agency issues a statement that overriding considerations require approval of the project.
- The project could be denied. (DSEIR, p. 3.4-14.)

The Project will be consistent with the Ozone and PM_{10} AQAPs based on the following:

- The Project is in conformance with the Kings County General Plan.
- The Project will not result in a direct population increase and is not growth inducing.
- The Project will have a landfill gas control system that fulfills the requirements of SJVUAPCD Rule 4642 and New Source Performance Standards (NSPS) for municipal solid waste landfills.
- The Project implements feasible fugitive PM_{10} control measures, including requirements of Rule 8040 – Fugitive Dust Requirements for Control of Fine Particulate Matter (PM_{10}) From Landfill Disposal Sites.

(DSEIR, pp. 3.4-15, 3.7-17.)

Generally, AQAPs recognize that continued growth in a region will occur and include measures to bring the region into attainment over time via rules and regulations that reduce air emissions but allow growth to continue. Thus, a project can be found to be consistent with the AQAP if it is consistent with the County General Plan, if it does not result in population growth beyond that projected in the County General Plan, and if it complies with applicable APCD rules and regulations. The Project meets these consistency requirements of the AQAP; therefore, it is consistent with the AQAP. (DSEIR, pp. 3.7-17 to 3.7-18.)

Mitigation Measure: The Project will require a modification of the existing KHF CUP. The SEIR will be used by County decisionmakers when determining whether to approve the modified CUP and SWFP. There are various mitigation measures throughout the SEIR that relate directly or indirectly to land use. Implementation of these measures will assure that impacts to land use remain below a level of significance. No mitigation required. (DSEIR, pp. 3.4-16 to 3.4-17; FSEIR, Appendix A (MMP).)

Impact 3.4.3.4.2: Noise Standards

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: The CNEL noise standard from the Kings County General Plan for agricultural land uses is 70 decibels A-weighted (dBA). The landfill hours of operation are from 8:00 a.m. to 6:00 p.m. The estimated total CNEL from landfill operations is approximately 57 dBA at 800 feet from the working face of B-19. Based on the above, the noise levels from the proposed increase in landfill operations at B-19 will not result in a significant noise impact on surrounding agricultural lands. CNEL would remain well below the Kings County noise standard for such land uses, and increases in noise levels

will be less than 1 dBA. Therefore, the Project is consistent with the County Noise Standards. (DSEIR, p. 3.4-15.)

Mitigation Measure: The Project will require a modification of the existing KHF CUP. The SEIR will be used by the County for consideration of a modified CUP. There are various mitigation measures throughout the SEIR that relate directly or indirectly to land use. Implementation of these measures will assure that impacts to land use remain below a level of significance. No mitigation required. (DSEIR, pp. 3.4-16 to 3.4-17.)

Impact 3.4.3.4.3: Traffic Standards

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: Projected Project traffic volumes result in LOS between A and C on SR-41 and SR-43, depending on the specific roadway (TPG Consulting 2004). The existing LOS on the portion of I-5 in Kings County is LOS A. The LOS will not change from the existing condition for any segment or intersection analyzed on SR-41, SR-43, or I-5 under the Project. (DSEIR, p. 3.4-15.)

The Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while California Department of Transportation (Caltrans) seeks to maintain LOS C or better on state highways. The Project will not cause the existing LOS on the state highway segments or on intersections analyzed for the Project to change. Therefore, the Project is consistent with the Kings County General Plan and RTP, and with the Caltrans standard of LOS "C" or better. Impacts from the Project-related traffic will be less than significant. (DSEIR, pp. 3.4-15 to 3.4-16.)

The LOS for the segments and intersections analyzed are the same (between LOS A and C), both with and without the Project. Even without the Project, the LOS for these segments and intersections are changing over time compared to existing LOS based on growth in the area. There is no change to LOS on the roadway segments and intersections analyzed for the Project. Therefore, the Project is consistent with the Kings County General Plan and RTP, and with the Caltrans LOS standard of "C" or better. The Project will also not result in an increase in the number of truck trips (round-trip) previously approved to travel East on SR-41 through Kettleman City (e.g., 86). Impacts from Project-related traffic will be less than significant. (DSEIR, p. 3.4-16.)

Mitigation Measure: Implementation of TT-MM.1, in conjunction with the implementation of the other mitigation measures found throughout the SEIR relating to land use, will ensure that impacts to land use remain below a level of significance. (DSEIR, pp. 3.4-16 to 3.4-17, 3.6-11; FSEIR, Appendix A (MMP).)

Significance After Mitigation: Less than Significant. (DSEIR, p. 3.4-17, 3.6-11.)

D. NOISE

Impact 3.5.3.1: Landfill Operations

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: Currently, the B-18 Class I/II Landfill and B-19 Class II/III Landfill are active and generate noise from landfilling operations. Therefore, increased landfill activities associated with the Project will not result in a new type of noise at B-19. For the purpose of increasing daily tonnage for disposal at B-19 from a total receipt of 1,400 tons per day (tpd) to 2,000 tpd of municipal solid waste and designated waste, the Project would add one dozer and one compactor to the current equipment fleet operating at KHF. Based on reference noise data for heavy equipment available from the United States Environmental Protection Agency (EPA), the addition of one dozer and one compactor to the existing equipment fleet at B-19 would result in an increase in overall noise levels of less than 1 dBA. From information presented in the 1997 SEIR for the B-19 landfill, the average noise level from the 1,400-tpd B-19 landfill was estimated to be 71.4 dBA at 200 feet from the working face of B-19. (DSEIR, pp. 3.5-4 to 3.5-5.)

Typically, noise decreases at a rate of 6 dBA per each doubling of distance, due to attenuation as the noise travels through the atmosphere. For example, the estimated landfill noise level of 71 dBA at a distance of 200 feet will attenuate to approximately 65 dBA at 400 feet and less than 60 dBA beyond a distance of approximately 800 feet from the footprint of B-19, a distance that is still within the property boundaries of KHF. The addition of new equipment, therefore, would result in an average noise level of approximately 60 dBA at a distance of 800 feet from the working face of B-19. The above estimates of noise levels from existing landfill operations assume no noise attenuation from the natural topography and, therefore, represent a conservative assessment of landfill noise exposure. At KHF, surrounding topography and vegetation provide natural noise attenuation for landfill activities. (DSEIR, p. 3.5-5.)

The CNEL noise standard from the County General Plan for agricultural land uses is 70 dBA. The landfill hours of operation are from 8:00 a.m. to 6:00 p.m. The estimated total CNEL from landfill operations is approximately 60 dBA at 800 feet from the working face of B-19. Based on the above, the noise levels from the proposed increase in landfill operations at B-19 will not result in a significant noise impact on surrounding agricultural lands because CNEL would remain well below the Kings County noise standard of 70 dBA for such land uses, and the increase in noise levels will be less than 1 dBA. (DSEIR, p. 3.5-5.)

Mitigation Measures: The proposed project will not result in significant adverse environmental onsite noise related impacts, nor will onsite noise levels generated under the Project result in significant impacts to noise-sensitive land uses in the vicinity of KHF. Mitigation is therefore not required. (DSEIR, p. 3.5-8.)

Impact 3.5.3.2: Offsite Traffic Noise

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: The Project would not result in an increase in the existing maximum 86 truck round-trips per day for the current operation of B-19 on State Route 41 (SR-41) through Kettleman City, where noise-sensitive land uses exist. Traffic associated with Saturday operations also will be within the existing approved 86 truck round-trips per day. Therefore, the Project would not result in additional traffic noise impacts along SR-41 in Kettleman City. Traffic noise impacts due to the existing operation of B-19 were addressed in the 1997 SEIR, and traffic noise mitigation measures, in the form of soundproofing of residential structures along SR-41 in Kettleman City, was implemented as a result of that study. There would be no need for further mitigation of traffic noise on SR-41 through Kettleman City. (DSEIR, pp. 3.5-5 to 3.5-8.) Thus, noise related to truck traffic through Kettleman City was previously mitigated during permitting of B-19 as a Class II/III landfill. (DSEIR, p. 3.5-8.) Because the proposed project will not result in an increase in permitted levels of traffic through Kettleman City, noise levels due to traffic truck trips through Kettleman City will remain less than significant under the proposed project. (See also FSEIR, Appendix A, p. A-2 (TT-MM.1).)

It is anticipated that the Project would add 38 truck round-trips to existing traffic on I-5 to westbound SR-41 to KHF and 45 vehicles to eastbound SR-41 to KHF. Based on existing traffic volumes on SR-41, the anticipated increase in CNEL due to such increases in truck traffic would be up to 0.3 dBA, which would be an indiscernible change to existing noise levels along SR-41. Based on data from Caltrans, the average daily trips on I-5 at its junction with SR-41 is 64,500 vehicles (total of northbound and southbound). The addition of 38 trucks traveling to B-19 on I-5 is approximately 0.05 percent. The addition of Project-related traffic to existing traffic on I-5 would result in an indiscernible change in CNEL in the vicinity of the highway. The remainder of Project-related traffic was evaluated in the 1997 Draft SEIR for B-19 and included in 2004 and 2007 traffic projections (TRC 1997). (DSEIR, p. 3.5-6.) Thus, the Project would result in insignificant traffic noise impacts along SR-41 or I-5. (DSEIR, p. 3.5-6.)

Mitigation Measures: Noise levels from the Project at KHF will not result in significant impacts to noise-sensitive land uses in the vicinity of KHF. Offsite noise impacts will therefore remain less than significant. Mitigation is not required. (DSEIR, p. 3.5-8.)

Impact 3.5.3.3: Bioreactor Operations Noise

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: The bioreactor at B-19 would generate intermittent noise from small pumps and trucks that transport and discharge liquids and high-moisture-content wastes to the bioreactor. Noise levels from these sources would be much lower than those generated by the heavy equipment used for landfill operations. Therefore, these sources are not expected to result in a noticeable increase in overall landfill noise levels. (DSEIR, p. 3.5-6.)

The Project includes the installation of a landfill gas flare system. Flare systems include blowers to draw the landfill gas into the flare. Typical landfill gas blower specifications require that the total noise generated by each of the blowers, including the casing, blower, and motor noise, not exceed 57 dBA at a distance of 50 feet when operating at the design conditions. For the Project, two B-19 blowers would be placed at the landfill gas flare, which will be located near the northwest corner of the B-19 area at an approximate distance of 2,500 feet from the nearest KHF property line. Considering a sound level drop-off of 6 dBA per doubling of distance from the source, estimated noise level attributed directly to the landfill gas blowers at the nearest KHF property line would be below 26 dBA, which effectively would be inaudible and, therefore, insignificant. (DSEIR, p. 3.5-6.)

Mitigation Measures: Onsite noise impacts are not significant, and noise levels from Project-related traffic are not significant. Mitigation is not required. (DSEIR, p. 3.5-8.)

Impact 3.5.3.4: Closure/Post-Closure

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Activities necessary to complete the closure of B-19 include final grading, placement of final cover, and the planting of vegetation. Equipment used for closure activities will be similar to that used for daily operations of B-19. Therefore, noise from closure activities will not exceed 60 CNEL at the KHF property boundary and will not be significant. At closure of B-19, the majority of vehicle trips to the landfill will cease. Therefore, traffic-related noise levels during closure operations (Monday through Saturday, 8:00 a.m. to 6:00 p.m.) will be significantly less than during operations, which, as discussed above, will be less than significant. (DSEIR, pp. 3.5-6 to 3.5-7.)

During the post-closure period, activities at closed facilities will be even fewer and will be limited to periodic maintenance trucks and equipment. Noise levels during the post-closure period will be much less than during Project operations and less than during the closure period, and will not be significant. (DSEIR, p. 3.5-7.)

Mitigation Measures: Since onsite noise impacts and noise levels from Project-related traffic are insignificant during closure/post-closure activities, mitigation is not required. (DSEIR, p. 3.5-8.)

E. TRANSPORTATION AND TRAFFIC

Impact 3.6.3.1: Project-Related Traffic

Finding: This impact is less than significant. Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant (e.g., mitigation measure TT-MM.1.) (See FSEIR, Appendix A (MMP).)

Explanation: For the traffic analysis conducted for the Project, project-related traffic was added to the existing 2004 and projected 2007 traffic volumes for roadways that will be used by trucks during implementation of the Project. The existing site related traffic volumes include trucks that travel to and from KHF as part of ongoing waste operations, including the current operation of B-19. (DSEIR, p. 3.6-6.)

Currently, up to 86 truck round-trips per day haul up to 1,400 tons per day (tpd) of municipal solid waste and designated waste that are permitted for disposal at B-19. The results from the 2000 traffic analysis show that the maximum of 86 daily truck round-trips to B-19 does not result in a reduction in the LOS on SR-41 through Kettleman City from an acceptable level (i.e., LOS C or better) to an unacceptable level (i.e., LOS D, E, or F). (DSEIR, p. 3.6-6.)

The Project will be permitted to accept up to 2,000 tpd of waste at B-19, using an additional 82 truck round-trips per day for delivery of municipal solid waste, liquid and high-moisture-content wastes, and materials for daily cover and beneficial use. The maximum daily truck count due to the Project is expected to be 168 truck round-trips. The existing B-19 truck traffic on SR-41 through Kettleman City is up to 86 truck round-trips per day. At the Project levels of waste delivery, KHF estimates that a maximum of 85 waste transport trucks per day would travel through Kettleman City on SR-41. The 82 additional truck round-trips for the Project will travel to KHF via U.S. Highway 101 to eastbound SR-41 or via I-5 to its interchange with SR-41, then westbound on SR-41 to the KHF entrance. (DSEIR, p. 3.6-6.)

In addition, KHF will be adding Saturday hours (8:00 a.m. to 6:00 p.m.) for receipt and disposal of Class II/III wastes. Saturday traffic is projected to be the same level as the Monday through Friday operation of B-19. (DSEIR, p. 3.6-7.)

An additional five employees are expected to be hired for the Project. This would result in a maximum of five additional vehicles per day to and from KHF. Other traffic, such as deliveries and visitors (up to 20 vehicles per day), is not expected to change. (DSEIR, p. 3.6-7.)

Mitigation Measure: Transportation and traffic impacts related to the Project will not be significant. No mitigation is required. Nonetheless, the project proponent shall implement the following mitigation measure:

TT-MM.1 KHF will track and record daily the number of waste transport trucks that go to the B-19 landfill, based on the origin of the waste and the assumed route of truck travel. This information will be maintained in the B-19 operating records and will be available for review by the Local Enforcement Agency (LEA). If the number of waste transport trucks through Kettleman City approaches the maximum allowable limit of 86 truck round-trips per day, some trucks will be rerouted, to maintain the number of waste transport trucks below the allowable limit.

(DSEIR, p. 3.6-11; see also FSEIR, Appendix A (MMP).)

Significance After Mitigation: Less than significant without mitigation. Project-specific traffic impacts on SR-41 and SR-43 are not considered significant because, even with the addition of Project-related traffic, the LOS remains LOS A, B, or C. In addition, the LOS on I-5 will remain at LOS A. As discussed above, the Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while Caltrans considers LOS C or better to be acceptable for state highways. Therefore, the Project will not result in a significant traffic impact based on the existing and projected traffic levels of service. (DSEIR, p. 3.6-10.)

In addition, truck traffic bound for B-19 via SR-41 through Kettleman City will remain at the existing 85 to 86 truck round-trips per day for delivery of municipal solid waste and materials used for daily cover and beneficial use. Other trucks for the Project will travel to the Project site either via eastbound SR-41 or via I-5 to its interchange with SR-41, then westbound on SR-41 to the KHF entrance. Based on the Caltrans ADT, the additional 82 truck round-trips is approximately 0.05 percent of the average ADT traveling on I-5 past the SR-41 junction. In addition, I-5 in this area of the San Joaquin Valley operates at LOS A. Therefore, transportation and traffic impacts related to the Project will be less than significant. (DSEIR, p. 3.6-10, -11.)

Impact 3.6.3.2: Project Area Roadways

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: The Project will increase the daily tonnage of Class II/III wastes from 1,400 tpd to 2,000 tpd, and add Saturday operating hours. The existing B-19 truck traffic through Kettleman City is up to 86 truck round-trips per day for delivery of municipal solid waste and materials used for daily cover and beneficial use. The additional 82 truck round-trips for the Project will not travel through Kettleman City, but will travel to the Project site either via eastbound SR-41 or via I-5 to its interchange with SR-41, then westbound on SR-41 to the KHF entrance. (DSEIR, p. 3.6-7.)

Mitigation Measure: Transportation and traffic impacts related to the Project will not be significant. No mitigation is required. However, to assure that the traffic levels associated with the Project remain below a level of significance, the Project proponent shall implement mitigation measure *TT-MM.1*. (DSEIR, p. 3.6-11.)

Significance After Mitigation: Less than significant without mitigation. Project-specific traffic impacts on SR-41 and SR-43 are not considered significant because, even with the addition of Project-related traffic, the LOS remains LOS A, B, or C. In addition, the LOS on I-5 will remain at LOS A. As discussed above, the Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while Caltrans considers LOS C or better to be acceptable for state highways. Therefore, the Project will not result in a significant traffic impact based on the existing and projected traffic levels of service. (DSEIR, p. 3.6-10.)

In addition, truck traffic bound for B-19 via SR-41 through Kettleman City will remain at the existing 85 to 86 truck round-trips per day for delivery of municipal solid waste and materials used for daily cover and beneficial use. Other trucks for the Project will travel to the Project site either via eastbound SR-41 or via I-5 to its interchange with SR-41, then westbound on SR-41 to the KHF entrance. Based on the Caltrans ADT, the additional 82 truck round-trips is approximately 0.05 percent of the average ADT traveling on I-5 past the SR-41 junction. In addition, I-5 in this area of the San Joaquin Valley operates at LOS A. Therefore, impacts related to travel through Kettleman City will be less than significant. (DSEIR, p. 3.6-10.)

Impact 3.6.3.3: Project Traffic Volumes

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: Projected Project traffic volumes result in LOS between A and C, depending on the specific roadway, and the LOS does not change from the existing condition for any segment or intersection analyzed with the Project. The Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while Caltrans considers LOS C or better to be acceptable for state highways. There is no Project-related change to LOS (the LOS remains between "A" and "C") on the roadway

segments and intersections evaluated for the Project. Therefore, impacts from the Project will be less than significant. (DSEIR, p. 3.6-7.)

Mitigation Measure: Transportation and traffic impacts related to the Project will not be significant. No mitigation is required. However, to assure that the traffic levels associated with the Project remain below a level of significance, the Project proponent shall implement mitigation measure *TT-MM.1*. (DSEIR, p. 3.6-11.)

Significance After Mitigation: Less than significant without mitigation. Project-specific traffic impacts on SR-41 and SR-43 are not considered significant because, even with the addition of Project-related traffic, the LOS remains LOS A, B, or C. In addition, the LOS on I-5 will remain at LOS A. As discussed above, the Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while Caltrans considers LOS C or better to be acceptable for state highways. Therefore, the Project will not result in a significant traffic impact based on the existing and projected traffic levels of service. (DSEIR, p. 3.6-10.)

In addition, truck traffic bound for B-19 via SR-41 through Kettleman City will remain at the existing 85 to 86 truck round-trips per day for delivery of municipal solid waste and materials used for daily cover and beneficial use. Other trucks for the Project will travel to the Project site either via eastbound SR-41 or via I-5 to its interchange with SR-41, then westbound on SR-41 to the KHF entrance. Based on the Caltrans ADT, the additional 82 truck round-trips is approximately 0.05 percent of the average ADT traveling on I-5 past the SR-41 junction. In addition, I-5 in this area of the San Joaquin Valley operates at LOS A. Therefore, impacts related to travel through Kettleman City will be less than significant. (DSEIR, p. 3.6-10.)

Impact 3.6.3.4: 2007 Traffic Projections With Project

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: Projected traffic volumes on SR-41 and SR-43 result in LOS between A and C, depending on the specific roadway. The LOS for the segments and intersections analyzed are the same, both with and without the Project. The LOS levels for these segments and intersections are changing over time compared to existing LOS levels based on growth in the area, even without the proposed Project. The Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while Caltrans considers LOS C or better to be acceptable for state highways. Therefore, impacts from Project-related traffic will be less than significant. (DSEIR, pp. 3.6-7 to 3.6-8.)

Mitigation Measure: Transportation and traffic impacts related to the Project will not be significant. No mitigation is required. However, to assure that the traffic levels associated with the Project remain below a level of significance, the Project proponent shall implement mitigation measure *TT-MM.1*. (DSEIR, p. 3.6-11.)

Significance After Mitigation: Less than significant without mitigation. Project-specific traffic impacts on SR-41 and SR-43 are not considered significant because the LOS of C or better for the segments and intersections analyzed is the same with or without the proposed Project for the year 2007. The LOS for these segments and intersections are projected to change over time in response to growth in the area, but will not exceed LOS C regardless of whether the Project is implemented. In addition, I-5 in this area of the San Joaquin Valley will continue to operate at LOS A. Therefore, the Project will have a less-than-significant impact on 2007 traffic projections. (DSEIR, p. 3.6-11.)

Project impacts are not considered significant because they do not result in a reduction of levels of service to below LOS C on analyzed state highways and intersections. Therefore, roadways continue to meet standards of the Kings County General Plan and RTP, and the Caltrans standards. As a result, no traffic-related mitigation measures are required for the Project. (DSEIR, p. 3.6-11.)

Impact 3.6.3.5: Average Daily Truck Trips on I-5

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: Based on the Caltrans 2002 Annual Average Daily Truck Traffic Data, the annual ADT on I-5 at its junction with SR-41 is 64,500 vehicles (total northbound and southbound). I-5 in the area of the San Joaquin Valley operates at LOS A. The additional 38 truck round-trips traveling to B-19 on I-5 is approximately 0.05 percent of the 64,500 ADT that travel on the I-5 past the SR-41 junction and will not affect the existing LOS A on I-5. (DSEIR, p. 3.6-8.)

Mitigation Measure: Transportation and traffic impacts related to the Project will not be significant. No mitigation is required. However, to assure that the traffic levels associated with the proposed Project remain below a level of significance, the Project proponent shall implement mitigation measure *TT-MM.1*. (DSEIR, p. 3.6-11.)

Significance After Mitigation: Project-specific traffic impacts on SR-41 and SR-43 are not considered significant because, even with the addition of Project-related traffic, the LOS remains LOS A, B, or C. In addition, the LOS on I-5 will remain at LOS A. As discussed above, the Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while Caltrans considers LOS C or better to be acceptable

for state highways. Therefore, the Project will not result in a significant traffic impact based on the existing and projected traffic levels of service. (DSEIR, p. 3.6-10.)

In addition, truck traffic bound for B-19 via SR-41 through Kettleman City will remain at the existing 85 to 86 truck round-trips per day for delivery of municipal solid waste and materials used for daily cover and beneficial use. Other trucks for the Project will travel to the Project site either via eastbound SR-41 or via I-5 to its interchange with SR-41, then westbound on SR-41 to the KHF entrance. Based on the Caltrans ADT, the additional 82 truck round-trips is approximately 0.05 percent of the average ADT traveling on I-5 past the SR-41 junction. In addition, I-5 in this area of the San Joaquin Valley operates at LOS A. Therefore, impacts related to travel through Kettleman City will be less than significant. (DSEIR, p. 3.6-10.)

Impact 3.6.3.6: Closure and Post-Closure Traffic Impacts

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: At the time of closure, B-19 will be closed in accordance with applicable existing general and regional plans. During closure, traffic associated with B-19 will be limited to personnel involved with closure activities and a limited number of trucks delivering materials. The estimated number of truck round-trips to the site (4 to 5 per day) will vary during the closure period, based upon materials required, such as drainage material and piping. Soil for closure will be taken from the onsite sources at KHF. Because traffic generated during closure will be well below existing levels, closure activities will not have a significant impact on traffic. (DSEIR, p. 3.6-8.)

During the post-closure monitoring and maintenance period, personnel will access the area only for routine monitoring and for maintenance activities. Therefore, post-closure activities also will not have a significant impact on traffic. (DSEIR, p. 3.6-8.)

Mitigation Measure: Transportation and traffic impacts related to the Project will not be significant. No mitigation is required. However, to assure that the traffic levels associated with the Project remain below a level of significance, the Project proponent shall implement mitigation measure *TT-MM.1*. (DSEIR, p. 3.6-11.)

Significance After Mitigation: Less than significant without mitigation. Project-specific traffic impacts on SR-41 and SR-43 are not considered significant because, even with the addition of Project-related traffic, the LOS remains LOS A, B, or C. In addition, the LOS on I-5 will remain at LOS A. As discussed above, the Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while Caltrans considers LOS C or better to be acceptable for state highways. Therefore, the Project will not result in a significant traffic impact based on the existing and projected traffic levels of service. (DSEIR, p. 3.6-10.)

In addition, truck traffic bound for B-19 via SR-41 through Kettleman City will remain at the existing 85 to 86 truck round-trips per day for delivery of municipal solid waste and materials used for daily cover and beneficial use. Other trucks for the Project will travel to the Project site either via eastbound SR-41 or via I-5 to its interchange with SR-41, then westbound on SR-41 to the KHF entrance. Based on the Caltrans ADT, the additional 82 truck round-trips is approximately 0.05 percent of the average ADT traveling on I-5 past the SR-41 junction. In addition, I-5 in this area of the San Joaquin Valley operates at LOS A. Therefore, impacts related to travel through Kettleman City will be less than significant. (DSEIR, p. 3.6-10.)

Impact 3.6.4: Cumulative Traffic Impacts

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Nevertheless, a voluntary measure has been incorporated into the project to ensure that the potential effects of the project remain less than significant.

Explanation: Cumulative traffic impacts will occur to the extent that traffic related to the Project, combined with traffic related to the identified cumulative projects, results in reducing a state highway segment and/or intersection to LOS C or lower. Caltrans plans a rehabilitation project on SR-41 between Utica Avenue and Quail Avenue, beginning in July 2008. This date is past the operational period of the Project. Therefore, this future Caltrans project is not addressed as a cumulative project in the SEIR. (DSEIR, p. 3.6-8.)

The traffic LOS on SR-41 and SR-43 for the Project remains at LOS C or better. The 2007 LOS without the Project includes existing traffic that is related to waste treatment, storage and disposal activities at KHF, including the current operation of B-19, plus the anticipated increase in traffic volumes based on growth within the area. The traffic volumes on the segments of SR-41 and SR-43 that will be used by the Project will result in levels of service that range from LOS A to LOS C, depending on the roadway. The Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while Caltrans considers LOS C or better to be acceptable for state highways. (DSEIR, pp. 3.6-8 to 3.6-9.)

The cumulative Landfill Disposal Continuation Project at KHF includes disposal of up to 2,000 tpd of municipal solid waste and designated waste, expansion of one landfill, and construction of two new landfills within the KHF property. Ongoing hazardous waste treatment, storage and disposal activities at KHF will not be affected. As a result, traffic associated with municipal solid waste and designated waste disposal activities at KHF would not be greater with the cumulative project than with the Project. There could be some construction traffic associated with the landfill expansion and initial construction of the two new landfills. However, this traffic would be temporary and would not contribute to an overall increase in traffic or result in reducing state highway segments or intersections to LOS D or lower, and are included within the 20 other vehicle trips that travel to KHF on a daily basis shown. None of the construction activities at KHF would

be expected to occur at the same time. Construction of Landfill B-20 will occur in the future but has not been scheduled. Therefore, these cumulative traffic impacts will be less than significant. (DSEIR, p. 3.6-9.)

The Avenal Landfill Expansion Project includes disposal of up to 6,000 tpd of municipal solid waste, an increase in the landfill footprint, relocation of the entrance facilities of the site to SR-269, and extension of site operations and waste acceptance to occur 24 hours a day, 7 days a week. Avenal Landfill is located approximately 10 miles northwest of KHF, within the City of Avenal. Traffic intersections and roads used to travel to the Avenal Landfill do not include SR-41, but primarily include roads off SR-269 from I-5, such as Avenal Cutoff, Hydril Road, and San Joaquin Street. As noted in the Draft EIR for the Avenal Landfill Expansion, the study intersections from traffic to the Avenal Landfill will continue to operate at LOS C conditions or better. Because the Avenal Landfill is not accessed by SR-41, the Avenal Landfill Expansion Project and the proposed B-19 Bioreactor Project will not result in a cumulative traffic impact on SR-41. In addition, the 38 trucks traveling to B-19 on I-5 will not result in a cumulative impact because the existing total volume traveling on I-5 (64,500 average daily trips) is less than significant, compared to the Project. I-5 in Kings County currently operates at LOS A, and this level of service will not change due to the Project and the Avenal Landfill Expansion Project. Therefore, cumulative traffic impacts will be less than significant. (DSEIR, p. 3.6-9.)

The Westlake Farms Co-Composting Facility Project will process Class B solids and other organic wastes into a compost product for use as soil amendments on Westlake Farms and other locations. Westlake Farms Co-Composting Facility is located 2 miles north of Utica Avenue and approximately 2.5 miles east of I-5. KHF is located west of the Westlake Farms Co-Composting Facility. Traffic intersections and roads used to travel to the Westlake Farms Co-Composting Facility include the northbound and southbound ramps at Utica Avenue from I-5 and Utica Avenue at Main Driveway. Because I-5 near and south of Utica Avenue currently operates at a LOS A, only very large developments or group of developments would generate substantial quantities of traffic and result in a decrease of LOS. Because the Westlake Farms Co-Composting Facility is not accessed by SR-41, the Westlake Farms Co-Composting Facility Project and the Project will not result in a cumulative traffic impact on SR-41. In addition, the 38 additional truck round-trips to B-19 on I-5 as part of the Project are not significant and will not result in an adverse cumulative impact as I-5 currently operates at LOS A and will continue to operate at LOS A with the Project and the cumulative projects. Therefore, cumulative traffic impacts will be less than significant. (DSEIR, p. 3.6-9.)

Mitigation Measure: Transportation and traffic impacts related to the Project will not be significant. No mitigation is required. However, to assure that the traffic levels associated with the Project remain below a level of significance, the Project proponent shall implement mitigation measure *TT-MM.1*. (DSEIR, p. 3.6-11.)

Significance After Mitigation: Less than significant without mitigation. Project-specific traffic impacts on SR-41 and SR-43 are not considered significant because, even with the addition of Project-related traffic, the LOS remains LOS A, B, or C. In addition,

the LOS on I-5 will remain at LOS A. As discussed above, the Kings County General Plan considers LOS D or better on County thoroughfares to be acceptable, while Caltrans considers LOS C or better to be acceptable for state highways. Therefore, the Project will not result in a significant traffic impact based on the existing and projected traffic levels of service. (DSEIR, p. 3.6-10.)

In addition, truck traffic bound for B-19 via SR-41 through Kettleman City will remain at the existing 85 to 86 truck round-trips per day for delivery of municipal solid waste and materials used for daily cover and beneficial use. Other trucks for the Project will travel to the Project site either via eastbound SR-41 or via I-5 to its interchange with SR-41, then westbound on SR-41 to the KHF entrance. Based on the Caltrans ADT, the additional 82 truck round-trips is approximately 0.05 percent of the average ADT traveling on I-5 past the SR-41 junction. In addition, I-5 in this area of the San Joaquin Valley operates at LOS A. Therefore, impacts related to travel through Kettleman City will be less than significant. (DSEIR, p. 3.6-10.)

F. AIR QUALITY

Impact 3.7.3.3.1: NO_x and ROG

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate, but do not avoid, the potentially significant adverse environmental effects associated with NOx and ROG. No mitigation is available to render the effects less than significant. The effects (or some of the effects) therefore remain significant and unavoidable and a Statement of Overriding Considerations is required under CEQA. (CEQA Guidelines, § 15093.)

Explanation: Estimated NO_x and ROG emissions (NO_x and ROG are precursors to the formation of ozone) can be directly compared to the significance thresholds included in Section 3.7.3.1 of the DSEIR. For NO_x, the maximum emission rate is 138 lb/day, which exceeds the significance threshold of 55 lb/day. Likewise, the maximum onsite emission rate for ROG is 148 lb/day, which exceeds the significance threshold of 55 lb/day. In accordance with the SJVUAPCD GAMAQI, if these thresholds are exceeded, a more detailed analysis of the potential air impacts can be undertaken to determine if the proposed project actually results in a significant impact. As discussed below and shown in Appendix C of the DSEIR, a more detailed analysis has been performed for the Project. (DSEIR, p, 3.7-13.)

As discussed in Appendix C of the DSEIR, the emission rate of each of the pollutants has been modeled to determine the ground level concentrations for comparison to the relevant CAAQS/NAAQS. To determine if the Project would result in significant concentration at the KHF boundary, the background concentration of each pollutant has been added to the modeled ground level concentration. The analysis for criteria pollutant concentrations and health risk were modeled at the property boundary. The results of the modeling are included in Appendix C of the DSEIR. The sum of the peak modeled concentrations of NO_x and ROG due to the Project and the background concentrations do not exceed the

CAAQS or NAAQS at the KHF boundary. This lack of exceedance is based on the distance of B-19 from the KHF boundary because emissions disperse with distance from the emission source. However, notwithstanding this lack of exceedance at the KHF boundary, because the SJVAB is nonattainment/extreme for the federal and nonattainment/severe for the state ozone 1-hour standard, the Project is found to have a Project-specific significant impact on air quality as it relates to ozone. (DSEIR, pp. 3.7-13 to 3.7-14; FSEIR, Appendix A (MMP).)

Mitigation Measures: Other than the existing mitigation measures governing the site and the addition of AQ-MM.1 (which requires KHF to implement a nitrogen oxide reduction technology that is deemed to be the most appropriate in terms of effectiveness and reliability for the two additional pieces of heavy-duty diesel-powered equipment), there are no feasible mitigation measures for NO_x and/or ROG, with the exception of the landfill gas flare system that is mandated by federal, state, and APCD regulations and is part of the proposed Project. (DSEIR, p. 3.7-19.)

Significance After Mitigation: Despite the implementation of AQ-MM.1, air quality impacts from onsite emissions of NO_x and ROG associated with the Project will remain significant and unavoidable. A statement of overriding considerations will be required by the Kings County Planning Commission before approving the Project. (DSEIR, p. 3.7-20.)

Impact 3.7.3.3.2: PM Emissions

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate, but do not avoid, the potentially significant adverse environmental effects associated with PM10 and PM2.5. No mitigation is available to render the effects less than significant. The effects (or some of the effects) therefore remain significant and unavoidable and a Statement of Overriding Considerations in required under CEQA. (CEQA Guidelines, § 15093.).

Explanation: The 24-hour CAAQS and NAAQS standards for PM_{10} are exceeded by the background concentrations in the air basin. EPA and SJVUAPCD, through adoption of the SIP, presume the contribution to nonattainment of any source to be insignificant if the source causes an impact in the area of less than 1 $\mu g/m^3$ for the annual mean concentration, and 5 $\mu g/m^3$ over a 24-hour average. The Project contributions are 0.22 $\mu g/m^3$ and 2.78 $\mu g/m^3$, respectively, at the KHF boundary. However, because the SJVAB is nonattainment for the federal and state PM_{10}, the Project is found to have a Project-specific significant impact on air quality. (DSEIR, p. 3.7-14; FSEIR, Appendix A (MMP).)

Mitigation Measure: The following mitigation measures for onsite emissions shall be implemented as part of the Project to reduce local and regional air quality impacts.

AQ-MM.1 The following mitigation measures for onsite emissions shall be implemented as part of the proposed Project to reduce impacts to the degree feasible:

- When new landfill equipment is purchased, new commercially available equipment shall assure that emissions are as low as practically feasible.
- Onsite vehicles and equipment shall be properly maintained.
- Fugitive dust emissions shall be controlled to meet the requirements of SJVUAPCD Regulation VIII, as applicable, to include, but not be limited to, the following:
- Watering active construction/disposal area.
- Watering unpaved roads.
- Installing track-out controls at the transition of paved roads to dirt roads that provide access to B-19.
- Vehicles and equipment shall be restricted to specific onsite roads
- Vehicle speed on onsite roads to/from the landfill shall be limited to 15 mph on paved and unpaved roads.
- For the additional two pieces of heavy-duty diesel-powered equipment required for the proposed Project, KHF will evaluate and implement a NO_x reduction technology that is deemed to be the most appropriate in terms of effectiveness and reliability.

(DSEIR, pp. 3.7-19 to 3.7-20; FSEIR, p. 2-5.)

Significance After Mitigation: Air quality impacts from onsite emissions of NO_x, ROG, PM_{10}, and $PM_{2.5}$ associated with the Project will remain significant and unavoidable even after implementation of mitigation measures. A statement of overriding considerations will be required by the Kings County Planning Commission to approve the Project. (DSEIR, p. 3.7-20.)

Impact 3.7.3.3.3: Health Risk Assessment

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Potential health risks of the Project include carcinogenic, chronic, and acute health hazards associated with exposure to toxic constituents via inhalation. The emissions of toxic constituents associated with landfill gas were estimated for the Project on the basis of the landfill gas generation rate and collection system efficiency. The emission of toxic constituents in diesel vehicle exhaust from the two new onsite vehicles associated with the Project also were analyzed. (DSEIR, p. 3.7-14.)

SJVUAPCD Regulation II, Rule 2201, has established air pollution control requirements and health risk limits for toxic air pollutants. The SJVUAPCD requires:

- Application of BACT for toxics (T-BACT)

- No significant increase in cancer risk (less than 10 in 1,000,000)
- No significant increase in noncancer risk:
- Chronic health hazard index increase less than 1.0
- Acute health hazard index increase less than 1.0

(DSEIR, p. 3.7-14.)

The chronic and acute health hazard indices are calculated as the sum of the health hazard indices for the individual toxic constituents. The health hazard index for each constituent equals the maximum ambient air quality concentration of the constituent divided by the reference exposure level concentration of the constituent. (DSEIR, p. 3.7-14.)

Health risk is a function of ground level concentrations of toxic constituents. Because the concentrations are a linear function of the total emissions from the facility, the impact of additional emissions on health risk can be determined by calculating the ratio of the total emissions before and after conversion of B-19 to a bioreactor. (DSEIR, p. 3.7-15.)

The health risks do not exceed the health risk criteria established by the CEQA Guidelines (Appendix G) or by criteria established by the SJVUAPCD. Therefore, the Project has a less than significant health risk. (DSEIR, p. 3.7-15.)

Mitigation Measure: No mitigation required.

Impact 3.7.3.3.4: Odor Impact

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: There are two primary sources of odor generated from landfill operations. The first is the aerobic (with oxygen) decomposition of organic waste materials prior to being covered with soil, such as at the landfill working face. The second consists of gases produced by anaerobic (without oxygen) bacterial digestion of buried waste. Other sources, such as biosolids and certain high moisture-content waste, also can create odors. (DSEIR, p. 3.7-15.)

To evaluate potential odors, the bioreactor operations of the Project were modeled; the results are presented in Appendix C to the DSEIR. The concentration of the components at the nearest property boundary is less than 10 parts per billion by volume (ppbv). These predicted concentrations are within or below the range of acceptable values. (DSEIR, p. 3.7-16.) Based on the analysis for the Project, hydrogen sulfide emissions (and the other sulfur-bearing compounds) of less than 10 ppb are not anticipated to be sources of continuously unacceptable odor, nor will these levels result in adverse health effects at the property boundary. (DSEIR, pp. 3.7-16 to 3.7-17.)

The nearest residence is located approximately 2.5 miles from KHF and approximately 3.3 miles from B-19. There are no other permanent residences or (non-KHF) workers within 3.5 miles of the KHF property. These distances exceed the required odor significance threshold of 1.0 mile. In addition, there have been no odor complaints related to B-19 received by KHF. Current onsite practices to minimize odors will continue to be used under the Project. (DSEIR, p. 2-25.) Based on this analysis, landfill odors from the Project are considered to be less than significant. (DSEIR, p. 3.7-17.)

Mitigation Measures: No mitigation required.

Impact 3.7.3.3.5: Air Quality Attainment Plan Consistency

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Projects that are inconsistent with an AQAP are considered to have a significant adverse air quality impact. If a project is inconsistent, there are several options:

- The project could be modified to become consistent.
- Mitigation measures could be applied to reduce or eliminate the inconsistency.
- A nonconforming project could be approved if the lead agency issues a statement that overriding considerations require approval of the project.
- The project could be denied.

(DSEIR, p. 3.7-17.)

The Project has been found to be consistent with the Ozone and PM_{10} AQAPs based on the following:

- The Project is in conformance with the County General Plan.
- The Project will not result in a direct population increase and is not growth inducing.
- The Project will have a landfill gas control system that fulfills the requirements of SJVUAPCD Rule 4642 and NSPS for municipal solid waste landfills.
- The Project implements feasible fugitive PM_{10} control measures, including requirements of Rule 8040 – Fugitive Dust Requirements for Control of Fine Particulate Matter (PM_{10}) From Landfill Disposal Sites.

(DSEIR, p. 3.7-17.)

Mitigation Measures: No mitigation required. Impact is less than significant.

Impact 3.7.4: Cumulative Air Impacts

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate, but do not avoid, the potentially significant environmental effect associated with cumulative air impacts. No mitigation is available to render the effects less than significant. The effects (or some of the effects) therefore remain significant and

unavoidable and a Statement of Overriding Considerations in required under CEQA. (CEQA Guidelines, § 15093.).

Explanation: Cumulative air quality and health risk impacts would occur to the extent that criteria and toxic pollutant emissions related to the Project combine with emissions from other new and/or ongoing sources in the vicinity. On a Project-specific basis, air emissions from the Project will not result in a significant impact at or beyond the KHF property boundary, but are considered to have a significant impact on cumulative air quality due to the SJVAB nonattainment status for ozone and PM_{10}. (DSEIR, p. 3.7-18.)

The surrounding land uses are open space and agriculture. Based on the County General Plan, it is reasonable to assume that this area will remain primarily open space and agricultural. KHF itself is planned to expand operations by providing additional disposal capacity for hazardous waste, designated waste, and municipal solid waste with a new Class I/II landfill (B-20) for hazardous and designated wastes, a new Class II/III landfill (B-17) for designated and municipal solid wastes, and a vertical and lateral expansion of the existing Class I landfill (B-18). Because the additional landfill capacity will be constructed and operated in phases, when the capacities of B-19 and B-18 are exhausted, ongoing operations will move to the next landfill; the rate of receipt of waste materials will not increase. Ongoing waste placement and daily cover activities will continue with the sequential operations of the new facilities. (DSEIR, p. 3.7-18.)

With the proposed KHF expansion of B-20 and B-17, the primary change will be in the total accumulation of waste and the potential for an increase in the generation rate of landfill gas. Because B-17 is not proposed to be a bioreactor, it will have a lower peak landfill gas generation rate than the bioreactor for the Project. The B-17 peak landfill gas generation rate will occur an estimated 15 to 20 years after the B-19 bioreactor peak landfill generation rate that is projected to occur in 2009. (DSEIR, p. 3.7-18.)

The proposed onsite Project emissions of NO_x, ROG, PM_{10}, and $PM_{2.5}$ will constitute a cumulatively significant impact because the entire SJVAB is designated as nonattainment of the NAAQS and CAAQS for ozone and PM_{10}. In addition, the SJVAB is being recommended by the state as nonattainment for $PM_{2.5}$. (DSEIR, p. 3.7-18.)

In addition, due to the nonattainment status of the SJVAB for ozone, PM_{10}, and $PM_{2.5}$, the proposed Project, the future KHF expansion projects, and the Avenal Landfill and Westlake Farms projects will result in a significant cumulative air quality impact in the air basin. (DSEIR, p. 3.7-19.)

Mitigation Measures: The Project proponent shall be required to implement Mitigation Measure AQ-MM.1 to reduce the air quality impacts of the project, however, there are no feasible mitigation measures to reduce cumulative air quality impacts from NO_x, ROG, PM10 or PM2.5 to less than significant levels. (DSEIR, pp. 3.7-19 to 3.7-20; FSEIR, p. 2-4, Appendix A (MMP).)

Significance After Mitigation: Air quality impacts from the emission of NO_x, ROG, PM_{10}, and $PM_{2.5}$ associated with the Project will remain significant and unavoidable even after implementation of mitigation measures. A statement of overriding considerations will be required by the Kings County Planning Commission to approve the Project. (DSEIR, p. 3.7-20.)

G. HAZARDS AND HAZARDOUS MATERIALS

Impact 3.8.3.1.1: Waste Transport, Handling, and Disposal: Risk of Upset

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Transport of municipal solid waste, designated waste, and liquid and high-moisture-content wastes to KHF and onsite within KHF could result in an upset condition if a traffic accident or other event capable of spilling waste material onto the roadway or adjacent areas were to occur. Such an event could lead to a traffic hazard until waste material could be cleaned up and affected vehicles removed. (DSEIR, p. 3.8-6.)

A spill of municipal solid waste, designated waste, or liquid or high-moisture-content waste will not pose a significant threat for release of hazardous constituents because these wastes are not hazardous. Physical hazards of a traffic accident involving a waste truck traveling to or from KHF would not be unique or different compared to existing traffic conditions, which include ongoing activities at KHF. There are no physical conditions or characteristics of roads that lead to KHF that are unique compared to other roads in Kings County. (DSEIR, pp. 3.8-6 to 3.8-7.)

Due to the nature of existing permitted activities at KHF, roads that are used to transport Project wastes to the site and on the site are expected to have a higher concentration of vehicles carrying hazardous waste than other roads in the vicinity. The presence of hazardous waste transport vehicles on these roads due to existing permitted operations at KHF results in the potential for traffic accidents involving vehicles carrying hazardous waste. If a haul truck related to the Project were involved in an accident with a truck hauling hazardous waste, there would be a potential for indirect impacts resulting from possible hazardous waste spillage. With the Project, the potential for such an event will be incrementally greater than under existing conditions because the Project includes an additional 82 trucks per day compared to 86 trucks per day under existing conditions. The transport of wastes for the Project will not result in any new or unique hazard. The associated potential for release of hazardous constituents in the event of an accident is less than significant. (DSEIR, p. 3.8-7.)

Onsite at KHF, it is unlikely that a waste transport truck would crash into the existing Drum Storage Unit. This area is located 200 to 500 feet away from the haul road to existing B-19, and there are no severe roadway conditions present (e.g., steep road grades) that could result in a truck losing control and traveling the 200- to 500-foot

distance from its designated route. Further, even if such an unlikely event were to occur, the impact would not be materially different from that which could occur under existing conditions. (DSEIR, p. 3.8-7.)

At the landfill itself, the subgrade slopes, liner, leachate management systems, gas control systems, and final cover for B-19 will be designed to withstand the anticipated maximum credible earthquake (MCE). (DSEIR, p. 3.8-7.)

If damage were to occur from an earthquake to exposed portions of the liner and/or cover system (i.e., liner/cover not overlain with waste), the liner/cover would be repaired without presenting a significant risk of exposure to the public or immediate hazard to the environment. Under this scenario, damage would be evident by bulging, tearing, or other deformation. Assessments of damage to the liner/cover system would be made, and repairs or reconstruction would occur as necessary, using standard construction techniques. Based on the extent of damage, there could be some migration of landfill gas through the damaged liner/cover systems. (DSEIR, p. 3.8-7.)

Assessments of damage to the landfill gas control systems would be made, and repairs or reconstruction would occur as necessary, using standard construction techniques. The maximum potential upset condition for this scenario would be for the landfill gas control systems to become ineffective in areas of the B-19 bioreactor and control unit waste prisms while repairs are being completed. (DSEIR, pp. 3.8-7 to 3.8-8.)

Mitigation Measures: Mitigation is not required. Continued implementation of existing operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. (DSEIR, p. 3.8-15.)

Impact 3.8.3.1.2: Waste Transport, Handling, and Disposal: Municipal Solid Waste

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Municipal solid wastes are subject to a visual screening program whereby the wastes are inspected for the presence of hazardous wastes and polychlorinated biphenyl (PCB)- containing wastes, either at the time of processing through a transfer station, or on a random basis at KHF for wastes that are received directly from collection vehicles. In addition, any waste load suspected of nonconformance with requirements for disposal is inspected. This program meets federal and state regulatory requirements. (DSEIR, p. 3.8-8.) Hazardous wastes that are detected by this inspection program are identified and managed in accordance with regulatory and permit conditions. (DSEIR, p. 3.8-8.)

In addition to the screening program described above, personnel assigned to B-19 will be trained to observe waste deposited at the working face for hazardous wastes and PCB-containing wastes. These personnel, who include equipment operators, will be responsible for reporting the presence of hazardous and/or PCB-containing wastes and for supporting removal of these wastes at the B-19 bioreactor unit and control unit. (DSEIR, p. 3.8-8.) The above procedures are the same as those implemented for existing activities at B-19. (DSEIR, p. 3.8-8.)

Mitigation Measures: Mitigation is not required. Implementation of the operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. (DSEIR, p. 3.8-15.)

Impact 3.8.3.1.3: Waste Transport, Handling, and Disposal: Designated Waste

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Designated wastes are subject to procedures similar to hazardous waste in requiring evaluation of each waste stream prior to receipt onsite. Review of designated wastes includes:

- Obtain data from the generator on waste stream characteristics, physical properties, and constituent concentrations prior to acceptance
- Issue a unique identification profile for the waste stream
- Review the shipping information on the waste load provided by the transporter, including the unique identification number, and verify conformance with information provided by the generator. (DSEIR, pp. 3.8-8 to 3.8-9.)

In accordance with CCR Title 27, Section 20210, designated wastes can be discharged only at Class I waste management units or at Class II waste management units that comply with applicable requirements of the State Water Resources Control Board (SWRCB) and have been approved by the "Central Valley Water Board. Because B-19 is an approved Class II/III landfill, it is permitted to receive designated wastes for disposal. (DSEIR, p. 3.8-9.)

Mitigation Measures: Mitigation is not required. Implementation of the existing operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. (DSEIR, p. 3.8-15.)

Impact 3.8.3.1.4: Waste Transport, Handling, and Disposal: Other Wastes

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: For the Project, other wastes include up to 800 tpd of liquids and high-moisture-content wastes that will be disposed in the bioreactor to accelerate the degradation of the municipal solid waste. Some of these other wastes may be designated waste. Therefore, procedures for control of these incoming wastes will be the same as for designated waste, as described above. (DSEIR, p. 3.8-9; FSEIR, p. 2-1.)

Mitigation Measures: Mitigation is not required. Implementation of the existing operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. (DSEIR, p. 3.8-15.)

Impact 3.8.3.2: Landfill Gas Hazards

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Potential impacts are associated with production and accumulation of landfill gas, particularly methane. Landfill gas is produced during the anaerobic (i.e., without oxygen) decomposition of organic waste materials and has the potential to migrate through the soil. The volume of landfill gas generated is a function of the moisture content and volume of waste landfilled at a disposal site. While the constituents of landfill gas are dependent on the waste composition, landfill gas typically consists of:

- Approximately 50 percent methane
- Approximately 50 percent carbon dioxide
- Trace amounts (less than 1 percent) of other gases such as propane, butane, ethane, chlorinated hydrocarbons and other reactive organic gases (ROGs). (DSEIR, p. 3.8-9.)

Methane is explosive in concentrations of 5 to 15 percent when confined in a closed space with sufficient oxygen for ignition and burning. In confined or semiconfined enclosures, methane and carbon dioxide may accumulate and create an asphyxiation hazard through displacement of oxygen. (DSEIR, p. 3.8-9.)

If landfill gas is not controlled, it can represent a significant potential hazard. However, this is not expected to result in a significant impact under the proposed Project because the B-19 landfill gas collection system will be installed in accordance with CCR Title 27 and requirements of the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD). The gas control system will minimize surface and subsurface emissions of landfill gas. Throughout operations, monitoring for methane accumulation in soil and onsite structures occurs at B-19 in accordance with CCR Title 27. The site will be required to maintain methane concentrations below potentially explosive levels. As a result, the potential for a landfill gas impact is considered to be less than significant. (DSEIR, pp. 3.8-9 to 3.8-10.)

Mitigation Measures: Mitigation is not required. Implementation of the existing operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. Operational procedures and regulatory requirements have been incorporated into the Project to assure that potential seismic-related impacts remain below a level of significance. (DSEIR, p. 3.8-15.)

Impact 3.8.3.3: Emergency Response/Contingency Plans

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: The Project will occur within the existing and permitted B-19 landfill and will involve the same waste transport and disposal activities as currently occur for waste disposal at B-19. As a result, the existing KHF emergency response/contingency plan will be applicable. Therefore, the Project will neither impair implementation of nor interfere with the existing KHF emergency response/contingency plan. (DSEIR, p. 3.8-10.)

Mitigation Measures: Mitigation is not required. Implementation of the operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. (DSEIR, p. 3.8-15.)

Impact 3.8.3.4: Fire Hazards

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Potential fire hazards at KHF are of concern to onsite personnel and members of the public who may reside in the vicinity of or pass by the facility. Fire could occur from brush fires that may originate in the vicinity and move onto the site or from fires originating at KHF, such as from "hot loads," subsurface fires, or site operations (e.g., vehicle use). (DSEIR, p. 3.8-10.)

It is possible that brush fires could move onto KHF from adjacent open space. However, the firebreak at the facility boundary, as well as widespread onsite grading, limit the potential for an onsite brush fire. The occurrence of a brush fire is considered remote because: (1) the active landfill is barren; (2) clearance of flammable material for a minimum distance of 150 feet from exposed flammable solid waste will be maintained in accordance with Public Resources Code, Section 4373; (3) during landfilling operations, there will be minimal uncovered waste because the working face will be kept small; and (4) there will be no exposed waste at the end of the day. (DSEIR, p. 3.8-10.)

Routine operations also provide possible ignition sources, including sparks from vehicles or machinery, and hot exhaust pipes. Burning materials could release toxic emissions,

depending on the materials burned. With the Contingency Plan that is in place for the site, a surface fire quickly would be controlled and extinguished. Impacts would be less than significant. (DSEIR, p. 3.8-10.)

There is little potential for a fire at the B-19 bioreactor or control unit, based on the following.

- Most of the municipal solid waste will have been processed through a transfer station/MRF prior to transport. This will minimize the potential for hot loads.
- Waste will be processed again at B-19 (i.e., dumped, spread, and compacted), thereby providing another opportunity to discover a hot load prior to burial.
- Modern landfilling methods and the regulatory requirements of CCR Title 27 (e.g., waste placement methods, cover practices, gas control) result in conditions whereby it would be difficult to sustain a subsurface fire.

(DSEIR, pp. 3.8-10 to 3.8-11.)

If a fire were to occur at the working face of B-19, it could result in the emission of combustion by-products. Such a fire quickly would be controlled using onsite heavy equipment. During the dumping of each waste load, site personnel will be present at the working face of the bioreactor unit or the control unit so that any smoldering or other signs of fire would be noticed quickly. Routinely compacting wastes while they are placed and maintaining the working face in a small area would further limit the rate and extent of a potential fire. Onsite heavy equipment (e.g., dozers, compactors, and water trucks) would be used to move burning or smoldering material off the working face to an adjacent soil cover area to be extinguished. As a result, impacts would be less than significant. (DSEIR, p. 3.8-11.)

Waste-stream controls (e.g., load checks) and application of daily and intermediate cover materials are some of the primary methods required by CCR Title 27 to prevent subsurface fires in covered waste. The use of cover materials controls fires that may occur, and also prevents fires from spreading through the landfilled waste. Daily cover and compaction practices are designed so that potentially combustible subsurface material is without sufficient oxygen to either initiate or maintain a burn. Landfill gas control systems are required to be designed to accommodate landfill settlement. With proper operation of the gas control system, conditions in covered waste normally would not support a substantial fire. Considering design and operational controls that would be required pursuant to CCR Title 27, the low probability of a subsurface fire is not considered a significant potential hazard. (DSEIR, p. 3.8-11.)

In the unlikely event of a subsurface fire, daily and intermediate cover would prevent spreading within the waste prism. A subsurface fire could not occur without oxygen. If such a fire were to occur, the gas control system would be adjusted to reduce vacuum pressure and, thereby, further reduce the potential for oxygen inflow. Other methods to extinguish landfill fires also are available, such as injection of inert gas (e.g., nitrogen). For these reasons, the impact of a subsurface fire would be less than significant. (DSEIR, p. 3.8-11.)

Mitigation Measures: Mitigation is not required. Implementation of the existing operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. (DSEIR, p. 3.8-15.)

Impact 3.8.3.5: Site Security

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Potential impacts from a breach of site security could include unauthorized dumping and scavenging. Unauthorized dumping of unacceptable waste could create a safety threat to persons at the landfill or in adjacent areas. KHF is secured by fencing to prevent unauthorized access. A locked gate on the access road discourages unauthorized entry. Onsite, a guard is present 24 hours a day, 7 days a week. The site is not open to the public. With these security measures and other operational procedures discussed in the DSEIR, the potential for unauthorized dumping is not significant. (DSEIR, pp. 3.8-11 to 3.8-12.) The existing security and safety programs will serve the Project with no upgrades or extensions required. (DSEIR, p. 2-17.)

Mitigation Measures: Mitigation is not required. Implementation of the existing operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. (DSEIR, pp. 2-17, 3.8-15; FSEIR, p. 2-1.)

Impact 3.8.3.6: Closure/Post-Closure

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: Because of the characteristics of municipal solid waste and designated waste, landfill gas will continue to be generated throughout the minimum 30 years of B-19 post-closure, with production diminishing through that period. It is expected that generation of landfill gas from the bioreactor will be complete in about half the time of the control unit. The landfill gas collection system in the bioreactor and control unit will be monitored and maintained to assure the systems are balanced and that optimum extraction of landfill gas is achieved. Therefore, landfill gas migration is expected to be controlled, and no significant impacts are anticipated. (DSEIR, p. 3.8-12.)

Surface fires are not likely to occur during the closure/post-closure period for the proposed Project because the final landfill cover system will be in place at this time. Over time, the rate of waste degradation in B-19 will diminish with a corresponding drop in internal temperatures. Therefore, the potential for subsurface fire will decrease

throughout the post-closure period. No significant impacts are expected. (DSEIR, p.3.8-12.)

Mitigation Measures: Mitigation is not required. Implementation of the operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. (DSEIR, p. 3.8-15.)

Impact 3.8.3.7: Other

Finding: Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

Explanation: The nearest school is Kettleman City Elementary School, located approximately 3.5 miles from KHF. Due to this distance, activities at the site would not impact the school or persons at the school. Because the proposed Project does not include the transport of hazardous materials, there would be no potential hazardous material impact related to waste transport.

The KHF is not on the list of "identified hazardous waste sites" for Kings County prepared in accordance with government Code Section 65962.5. Therefore, the Project will not affect or be affected by any existing hazardous waste site.

Mitigation Measures: Mitigation is not required. Implementation of the operational procedures and regulatory requirements will assure that impacts related to hazards and hazardous materials remain below a level of significance. (DSEIR, p. 3.8-15.)

IX.
PROJECT ALTERNATIVES

Where a lead agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause one or more significant adverse environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA. As noted earlier in these Findings, an alternative may be "infeasible" if it fails to fully promote the lead agency's underlying goals and objectives with respect to the project. Thus, "feasibility" under CEQA encompasses "desireability" to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social and technological factors. (*City of Del Mar, supra*, 133 Cal.App.3d at p. 417; see also *Sequoyah Hills, supra*, 23 Cal.App.4th at p. 715.)

In short, CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modifications or alternatives are not required, however, where such changes are infeasible or where the responsibility of modifying the project lies with some other agency. (CEQA Guidelines, § 15091, subds. (a), (b).)

The detailed discussion in Section IX demonstrates that nearly every significant effect identified in the SEIR has been at least substantially lessened, if not fully avoided, by the adoption of feasible mitigation measures. The Project would nevertheless result in significant and unavoidable direct and cumulative air quality impacts as a result of NO_x, ROG, PM_{10}, and $PM_{2.5}$ emissions associated with the Project.

Thus, the County can fully satisfy its CEQA obligations by determining whether any alternatives identified in the SEIR are both feasible and environmentally superior with respect to these impacts. If the County determines that no alternative is both feasible and environmentally superior with respect to the significant and unavoidable impacts identified in the SEIR, the County may approve the Project as mitigated, after adopting a statement of overriding considerations. As illustrated below, no identified alternative qualifies as both feasible and environmentally superior with respect to these unmitigable impacts. Only the proposed project is feasible in light of the project objectives and other considerations.

A. NO PROJECT ALTERNATIVE

Description

Under this alternative, the Project at KHF would not occur, and the currently permitted operations at B-19 would continue. The bioreactor landfill would not be implemented at the B-19 landfill; the daily tonnage limit for designated and municipal solid waste would not increase from 1,400 tons per day (tpd) to 2,000 tpd; and delivery of these wastes would not occur on Saturdays between 8:00 a.m. and 6:00 p.m. (DSEIR, p. 4-3.)

Environmental Analysis

Under the No Project alternative, impacts associated with the Project would not occur. Ongoing activities at B-19 would continue, but without Project-associated increases in truck traffic for delivery of increased tonnages of designated and municipal solid waste or delivery of liquid waste and high-moisture-content waste for the bioreactor. There also would not be an increase in onsite air emissions related to operation of additional equipment and designated waste and municipal solid waste truck trips, and there would not be an increase in the rate of landfill gas emissions. However, the No Project alternative has the potential to result in the need for additional landfill capacity at an earlier date than with the proposed Project. With the No Project alternative, operations would continue until B-19 reached capacity. At that time, designated and municipal solid wastes would be transported to other onsite or offsite landfills for disposal. Impacts

associated with the use of other landfills would occur sooner under the No Project alternative than with the Project. (DSEIR, p. 4-3.)

Feasibility/Relationship of Alternative to Project Objectives

The No Project Alternative would not include the bioreactor and, therefore, would not meet one of the objectives of the proposed Project, which is to determine the effectiveness of the bioreactor landfilling method. Also, the potential for greater amounts of waste to be disposed in B-19 would not occur. This alternative also would not meet the objective of increasing the daily tonnage of designated waste and municipal solid waste or of providing for these wastes to be delivered on Saturdays. (DSEIR, p. 4-4; Staff Report, p. 11.)

Section 1.2.3.1 of the Final SEIR explains that the No Project alternative would also result in the need for additional waste disposal capacity at other offsite landfills sooner than would occur under the proposed project; thus, resulting in reasonably foreseeable and potentially significant adverse environmental impacts (e.g., to traffic and air quality). This alternative is rejected because it would not provide an alternative source of disposal for liquid and high moisture content waste that is needed for Kings County and other jurisdictions.

Because the No Project Alternative would not result in the creation of a bioreactor within B-19 or allow additional waste disposal at the site, the significant and unavoidable air quality impacts of the project would be avoided under this alternative. Nevertheless, this alternative is rejected because it does not meet any of the basic objectives for the Project and is therefore infeasible.

In addition, the No Project Alternative is rejected because the beneficial environmental effects of implementing a bioreactor would not be realized. With bioreactor technology, there is purposeful control to maintain optimal moisture content at approximately 35 to 65 percent. The moisture, combined with the biological action of naturally occurring microbes, accelerates the rate of decomposition of the waste. A side effect of an anaerobic bioreactor is that it produces landfill gas earlier and at an overall higher rate of generation in the short term than does a traditional dry landfill. However, landfill gas is generated for a shorter period of time, resulting in long-term air quality improvements compared to a traditional dry landfill. (DSEIR, p. 1-7.)

Aside from fewer long-term air quality impacts, bioreactors have also been found to result in other environmental benefits such as: the acceleration of waste stabilization thereby making it possible for landfills to be converted to other useful purposes years sooner and with greater assurance of environmental safety; increasing air space and thereby extending the useful life of landfills and the need to site new facilities; reduction in leachate management costs while improving leachate quality through recirculation; and by providing an environmentally sound alternative to land application of liquid wastes since they can be used as a treatment center for these wastes. None of these potential benefits would be realized under the No Project Alternative. (See Staff Report, p. 12; see

also "The Bioreactor Landfill – The Next Generation of Landfill Management" White Paper, Waste Management, Inc. (2000).) This alternative is therefore rejected as infeasible for not achieving the basic project objectives and for otherwise not achieving the environmental benefits of the proposed project.

B. ONGOING OPERATION OF B-19, WITH INCREASED DAILY TONNAGE, WITHOUT BIOREACTOR

Description

This alternative includes the same increase in daily tonnage of municipal solid waste and designated waste and receipt of these wastes on Saturdays as the Project, but it does not include implementing a bioreactor landfill. This alternative would consist of the following:

- Continued operation of B-19 as a disposal facility for designated waste and municipal solid waste.
- Increase in maximum daily tonnage of designated and municipal solid waste from the current 1,400 tpd to 2,000 tpd
- Receipt of designated waste and municipal solid waste on Saturdays (8:00 a.m. to 6:00 p.m.)

(DSEIR, p. 4-4.)

Environmental Analysis

This alternative would result in increased designated waste and municipal solid waste haul trucks Monday through Friday and on Saturdays. Air quality impacts associated with the increase in truck traffic and additional equipment use onsite due to increased daily tonnage and Saturday deliveries would be similar to the Project and would be significant. Although without the bioreactor there would be fewer truck trips and therefore a corresponding decrease in the amount of air quality emissions from the delivery of liquids and high-moisture content waste, this alternative would still not reduce the cumulative impacts to air quality below a level of significance. (DSEIR, p. 4-4; Staff Report, p. 12.)

Because this alternative does not include a bioreactor, the additional landfill capacity that would result from implementation of a bioreactor will not occur. The Project is expected to result in significant Project-specific air quality impacts related to landfill gas emissions from the bioreactor. Under this alternative, the significant air quality impacts from the bioreactor would not occur. (DSEIR, p. 4-4.)

Because the bioreactor provides more total capacity compared to operating all of B-19 as a dry landfill, this alternative would result in less total capacity than the Project. As a result, compared to the Project, this alternative would result in the need for a new onsite or offsite landfill at an earlier date than would the Project. This alternative also would result in earlier closure of B-19 compared to the Project. (DSEIR, p. 4-5.)

Feasibility/Relationship of Alternative to Project Objectives

This alternative would not include the bioreactor and, therefore, would not meet one of the basic objectives of the Project, which is to determine the effectiveness of the bioreactor landfilling method. However, this alternative would meet the Project objectives of increased daily tonnage (1,400 to 2,000 tpd) and Saturday delivery of designated and municipal solid waste. (DSEIR, p. 4-5.) This alternative is rejected as infeasible because it would not meet most of the primary project objective; namely, to create a bioreactor within B-19 as a demonstration project and thereby demonstrate the feasibility of bioreactor landfill disposal technology. In addition, the beneficial environmental effects of implementing a bioreactor, such as increased settling of waste and a reduction in the amount of long-term air emissions, would not occur under this Alternative. (DSEIR, p. 1-7; see also Staff Report, pp. 12; "The Bioreactor Landfill – The Next Generation of Landfill Management" White Paper, Waste Management, Inc. (2000).) For each of these reasons, the Ongoing Operation of B-19, With Increased Daily Tonnage but Without the Bioreactor Alternative is rejected.

Section 1.2.3.1 of the Final SEIR explains that the Ongoing Operation of B-19, With Increased Daily Tonnage but Without the Bioreactor, would result in the need for additional landfill capacity at an earlier date than with the proposed Project and would result in significant direct and cumulative air quality impacts. This alternative is rejected because it would not provide an alternative source of disposal for liquid and high moisture content waste that is needed for Kings County and other jurisdictions, nor would it provide additional municipal solid waste disposal within B-19 through implementation of the bioreactor technology. (Staff Report, p. 12.) For all of these reasons, this alternative is rejected as infeasible.

C. REDUCED BIOREACTOR COMPONENT, WITH INCREASED DAILY TONNAGE

Description

This alternative consists of the following:

- Smaller bioreactor component (1.5 million cy, compared to 3.0 million cy for the proposed Project).
- Increase tonnage of designated waste and municipal solid waste from 1,400 tpd (current) to 1,800 tpd.
- Include Saturday receipt of designated waste and municipal solid waste (8:00 a.m. to 6:00 p.m.).

(DSEIR, p. 4-5.)

Environmental Analysis

Because the bioreactor component of this alternative would be smaller than with the Project, overall capacity of B-19 would be less than with the Project. (DSEIR, p.4-5.)

Compared to the Project, this alternative would include fewer truck trips to transport liquid waste and high-moisture-content waste for the bioreactor and fewer truck trips transporting designated waste and municipal solid waste. This alternative also would result in less daily tonnage (1,800 tpd) than the proposed Project (2,000 tpd). Based on these factors, the existing capacity of B-19 would not be used as quickly with this alternative as with the Project. Also, air quality impacts related to onsite operations and mobile sources air would be less than with the Project. However, because KHF is located in a federal and state nonattainment area for ozone and particulate matter with a diameter less than 10 micrometers (PM_{10}), air quality impacts of this alternative still would be significant on a Project basis and on a cumulative basis. (DSEIR, pp. 4-5 to 4-6.)

Feasibility/Relationship of Alternative to Project Objectives

This alternative would partially meet the Project objectives. There would be an increase in daily tonnage, but less of an increase than with the Project; and there would be a bioreactor, but smaller than with the Project. Therefore, information obtained regarding a smaller bioreactor under this alternative may not be as comprehensive as the information that would have been obtained for a larger bioreactor, which would provide Chemical Waste Management, Inc. (CWMI) and other landfill operators with operational data to evaluate the feasibility of a larger scale bioreactor. (DSEIR, p. 4-6.)

Nevertheless, Section 1.2.3.1 of the Final SEIR explains that the Reduced Bioreactor Component, With Increased Daily Tonnage Alternative, would not avoid or substantially lessen the otherwise significant adverse environmental impacts of the proposed project and, specifically, would continue to result in significant direct and cumulative air quality impacts. As explained in the Draft SEIR, under this alternative, air quality impacts related to onsite operations and mobile sources would be less than with the proposed project; however, because KHF is located in a federal and state nonattainment area for ozone and PM10, air quality impacts could not be avoided or substantially reduced and would therefore remain significant on a project and cumulative basis. (DSEIR, pp. 4-5 to 4-6.)

This alternative is rejected because it will not avoid or substantially reduce the significant and unavoidable impacts of the Project and because the alternative is financially infeasible. A significant capital investment is required to develop the bioreactor which would render a reduced project financially infeasible because it would not generate a rate of return that would justify financing the Project. (Staff Report, p. 13; WM Budget Report/White Paper.) A significant capital investment must be made by the project applicant to implement the project and includes, but is not limited to, installing the gas collection, control and disposal system and the leachate recirculation piping system and tanks. In addition, the same total number of additional employees would be required even if the project size and accepted tpd were reduced. The larger proposed project is therefore required to recover the capital investment and increased personnel costs that would be required even if the project is reduced in size and scale.

On the whole, this alternative is not superior to the project. For each of these reasons, the Reduced Bioreactor Component, With Increased Daily Tonnage Alternative is rejected as infeasible.

D. BIOREACTOR COMPONENT, WITHOUT INCREASED DAILY TONNAGE OR SATURDAY OPERATIONS

Description

This alternative consists of the following:

- Bioreactor component (3.0 million cy, the same as for the proposed Project)
- No increase in tonnage of designated waste and municipal solid waste from the current permitted tonnage of 1,400 tpd
- Would not include Saturday receipt of designated waste and municipal solid waste

(DSEIR, p. 4-6.)

Environmental Analysis

Because the bioreactor component of this alternative is the same as for the Project, overall capacity of B-19 would be the same as the Project. (DSEIR, p. 4-6.)

Compared to the Project, this alternative would include fewer truck trips transporting designated waste and municipal solid waste. This alternative also would result in less overall daily tonnage than the Project (maximum of 1,400 tpd compared to 2,000 tpd for the Project); however, the overall operations of B-19 would be the same. Based on these factors, the existing capacity of B-19 would not be used as quickly with this alternative as with the proposed Project. The bioreactor would result in increased short-term landfill gas emissions than would the current operation of B-19. With no increase in daily tonnage, the two additional pieces of equipment would not be required. Therefore, air quality impacts related to onsite operations and mobile sources air would be less than with the Project. However, because KHF is located in a federal and state nonattainment area for ozone and PM_{10}, air quality impacts of this alternative still would be significant on a Project basis and on a cumulative basis. (DSEIR, pp. 4-6 to 4-7.)

Feasibility/Relationship of Alternative to Project Objectives

Section 1.2.3.1 of the Final SEIR explains that the Bioreactor Component, Without Increased Daily Tonnage or Saturday Operations, would not avoid or substantially lessen the otherwise significant adverse environmental impacts of the proposed project and, specifically, would continue to result in significant direct and cumulative air quality impacts.

This alternative is rejected, in part, because it limits the site to acceptance of 1,400 total tpd of msw, designated and high moisture content waste. This limitation would unduly limit the ability to realize the potential benefits of the bioreactor technologically since the required mix of high moisture content waste and msw would be unable to be achieved. (Staff Report, pp.13 to 14.)

This alternative is also rejected because it is financially infeasible. A significant capital investment is required to develop the bioreactor which would render a reduced project financially infeasible because it would not generate a rate of return that would justify financing the project. A significant capital investment must be made by the project applicant to implement the project and includes, but is not limited to, additional personnel costs, installing the gas collection, control and disposal system and the leachate recirculation piping system and tanks. In addition, the same total number of additional employees would be required even if the project size and accepted tpd were reduced. The increase in the amount of msw and designated waste is therefore required to recover the capital investment costs that would be required. (Staff Report, pp. 13 to 14.)

This alternative is also rejected because it would fail to meet most of the basic project objectives, including increasing the daily tonnage of msw and designated waste permitted for disposal at KHF and receiving wastes on Saturdays. (Staff Report, pp. 13 to 14; see also DSEIR, p. 4-7.) This alternative is therefore rejected as infeasible.

E. OTHER ALTERNATIVES CONSIDERED BUT REJECTED

Evaluation of Alternative Sites

An offsite alternative is not considered to be feasible because it is economically infeasible for CWMI to implement the Project at a landfill that it currently does not own and/or operate. Currently, CWMI does not own or operate any other landfill in the County and, therefore, does not have access to other waste disposal capacity. In addition, the offsite alternative does not meet the Project objectives of operating a bioreactor within B-19 as a demonstration project and does not meet the objective of demonstrating the feasibility of a bioreactor landfill disposal technology by comparing the performance of the bioreactor with the performance of a traditional "dry" landfill. (DSEIR, p. 4-7.)

An off-site alternative located within Kings County was also rejected as infeasible because it would not avoid or substantially lessen the air quality impacts of the project in the county. (CEQA Guidelines, § 15126.6, subd. (f)(2)(A).)

Because a feasible off-site alternative location was not identified this alternative was not analyzed in detail in the SEIR. (Staff Report, pp.14 to 15.)

Environmentally Superior Alternative

In accordance with CEQA Guidelines Section 15126.6, subdivision (e)(2), if the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Based on the analysis of alternatives in the previous sections, the No Project alternative is the environmentally superior alternative because it represents the baseline condition at the KHF site. In addition, the No Project alternative would not result in an increase in direct and cumulatively significant air quality impacts. (DSEIR, p. 4-7.)

Among the other alternatives, the Ongoing Operation of B-19 With Increased Daily Tonnage, Without the Bioreactor, is environmentally superior to the Project and the other alternatives. Because there is no bioreactor component, the Ongoing Operation of B-19 With Increased Daily Tonnage, Without the Bioreactor, would result in a lower rate of landfill gas emissions in the short-term and lower daily truck-trip emissions associated with liquid-waste delivery. However, without the bioreactor, this alternative does not fulfill the basic Project objectives and, therefore, is not the preferred alternative. (DSEIR, pp. 4-7 to 4-8)

The Project will result in significant Project-specific and cumulative air quality impacts. As concluded in Section 4.2, the Project alternatives would all result in reduced air emission impacts compared to the Project. However, the Ongoing Operation of B-19 With Increased Daily Tonnage, Without the Bioreactor alternative would not fulfill the Project objective related to the bioreactor, which includes increasing the capacity of B-19. The Reduced Bioreactor Component, With Increased Daily Tonnage alternative would result in a smaller increase in total capacity of B-19 than would the Project. (DSEIR, p. 4-8.)

X.
STATEMENT OF OVERRIDING CONSIDERATIONS

As set forth in the preceding sections, the County's approval of the Project will result in significant adverse environmental impacts to air quality that cannot be avoided even with the adoption of all feasible mitigation measures. Despite the occurrence of these effects, however, the County chooses to approve the Project because, in its view, the economic, social, and other benefits that the Project will produce will render the significant effects acceptable.

The following statement identifies why, in the County's judgment, the benefits of the Project as approved outweigh its unavoidable significant effects. Any one of these reasons is sufficient to justify approval of the Project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the County would stand by its determination that each individual reason is sufficient. The substantial evidence supporting the various benefits can be found in the preceding findings, which

are incorporated by reference into this section, and into the documents found in the Record of Proceedings, as defined in section V.

The County finds that each impact previously identified and briefly explained above is acceptable because mitigation measures have been required to reduce these impacts to the extent feasible, and in balancing the benefits to be realized by approval of the Project against the remaining environmental risks, the Planning Commission concludes that the following economic, social, and other considerations outweigh the impacts and support approval of the Project.

First, the Project would provide substantial economic benefits by creating jobs, and local and regional environmental benefits by effectively conserving landfill airspace and reducing long-term air quality emissions.

Second, the Project would further demonstrate the effectiveness of bioreactor technology to conserve landfill space and reduce air quality emissions on both a local and regional basis.

Third, the bioreactor would result in the acceleration of waste stabilization of B-19 thereby making it possible for the landfill to be converted to another useful purpose sooner and with greater assurance of environmental safety.

Fourth, the Project could increase the airspace in that portion of B-19 by 15 to 40 percent due to an increase in density of waste mass, thereby extending the useful life of the landfill and reducing the cost and demand for new landfill capacity and site facilities.

Fifth, methane gas generation of B-19 would be expanded and concentrated during the active life of the bioreactor portion of the landfill, making it easier to manage the gas while decreasing long-term greenhouse gas emissions over the life of the landfill.

Sixth, the recirculation of leachate as part of the bioreactor project could improve leachate quality and reduce the need for disposal.

Seventh, the Project would provide an environmentally sound alternative to land application of liquid wastes since it would be used as a treatment center for these wastes.

Eighth, the Project would result in improvement of the leachate and reduction in gas generation levels shortly after landfill closure, which would significantly reduce post-closure care costs and could ultimately result in a shorter post-closure period.

For all of these reasons, and each of them, the County approves the project despite its significant adverse impacts on air quality.

See the following documents in support of these findings, available at the Kings County Planning Department of review and included as an attachment to the staff report to the Kings County Planning Commission:

- "Toward a Twenty-first Century Landfill," Yolo County's Accelerated Anaerobic and Aerobic (Controlled Landfill Bioreactor Composting Projects) (2004);
- "Bioreactors," United States Environmental Protection Agency (February 9, 2004);
- "The Solid Waste Manager's Guide to the Bioreactor Landfill," MSW Management (2004);
- "The Bioreactor Landfill – An Innovation in Solid Waste Management," John Pacey, EMCON, San Mateo California et al.;
- "The Bioreactor Landfill: The Future of Landfill Management," Waste Management Presentation;
- "Introducing the Bioreactor Landfill, Next Generation Landfill Technology" – Waste Management (2004); and
- "The Bioreactor Landfill" A White Paper from Waste Management, Inc. (2000)

EXHIBIT "B" OF PLANNING COMMISSION RESOLUTION NO. 05-11

MITIGATION MONITORING PLAN

for the

B-19 LANDFILL BIOREACTOR PROJECT CHEMICAL WASTE MANAGEMENT, INC. (SCH NO. 2003091023)

APPENDIX A

Mitigation Monitoring Plan

Mitigation Measure/ Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agencies Responsible for Monitoring	Method to Verify Compliance	Verification Of Compliance		
					Signature	Date	Remarks
Geology and Soils:							
1. As part of the existing inspection and monitoring program established for the current Class I hazardous waste operations at KHF, after occurrence of an earthquake of Magnitude (M) 5.0 or greater within 25 miles of the site, or an M6.0 or greater earthquake within 50 miles of the site, a post-earthquake inspection of Project structures shall be conducted to determine the integrity of landfills structures and systems. In the event that damage to landfill structures and systems has resulted, appropriate measures shall be initiated to correct earthquake-related damage.	Post-earthquake inspection	Ongoing	LEA and Central Valley Water Board	Field inspection			
Hydrology and Water Quality:							
1. The liquid waste storage and injection system for the bioreactor will be checked each operating day to assure there are no leaks in the aboveground lines.	During operation	Daily	LEA and Central Valley Water Board	Field inspection			
2. Drainage structures, such as the perimeter drainage channels, evaporation ponds, stormwater retention basins, and collection pipes and ditches will be inspected and maintained on a regular basis.	During operation	Periodically	LEA and Central Valley Water Board	Field inspection			
3. Routine seeps from exposed side slopes will be detected by visual inspection and repaired.	During operation	Periodically	LEA and Central Valley Water Board	Field inspection			

Board Meeting July 18, 2006

Agenda Item 12 Attachment 6a

APPENDIX A

Mitigation Monitoring Plan

Mitigation Measure/ Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agencies Responsible for Monitoring	Method to Verify Compliance	Verification Of Compliance		
					Signature	Date	Remarks
Transportation and Traffic:							
KHF will track daily and record the number of waste transport trucks that go to the B-19 landfill, based on the origin of the waste and the assumed route of truck travel. This information will be maintained in the B-19 operating records and will be available for review by the LEA. If the number of waste transport trucks through Kettleman City approaches the maximum allowable limit of 86 truck round-trips per day, some trucks will be rerouted, to maintain the number of waste transport trucks below the allowable limit.	During operation	Daily	LEA	Records check			
Air Quality:							
1. When new landfill equipment is purchased, new commercially available equipment will assure that emissions are as low as practically feasible.	Ongoing	During operation	SJVUAPCD	Field inspection			
2. Onsite vehicles and equipment shall be properly maintained.	Ongoing	During operation	SJVUAPCD	Field inspection			
3. Fugitive dust emissions shall be controlled to meet the requirements of SJVUAPCD Regulation VIII, as applicable, to include, but not be limited to, the following: • Watering of active construction/disposal areas. • Watering of unpaved roads. • Installing track-out controls at the transition of dirt roads to paved roads that provide access to B-19.	Ongoing	During operation	SJVUAPCD	Field inspection			

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Mitigation Measure/ Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agencies Responsible for Monitoring	Method to Verify Compliance	Verification Of Compliance		
					Signature	Date	Remarks
4. Vehicles and equipment shall be restricted to specific onsite roads.	Ongoing	During operation	SJVUAPCD	Field check			
5. Vehicle speed on onsite roads to/from landfill shall be limited to 15 miles per hour on paved and unpaved roads.	Ongoing	During operation	SJVUAPCD	Field check			
6. For the additional two pieces of heavy-duty diesel-powered equipment required for the proposed Project, KHF will evaluate and implement a nitrogen oxide (NO_x) reduction technology that is deemed to be the most appropriate in terms of effectiveness and reliability.	At time of purchase	At time of purchase	SJVUAPCD	Field check			

Notes:
LEA = Local Enforcement Agency
SJVUAPCD = San Joaquin Valley Unified Air Pollution Control District